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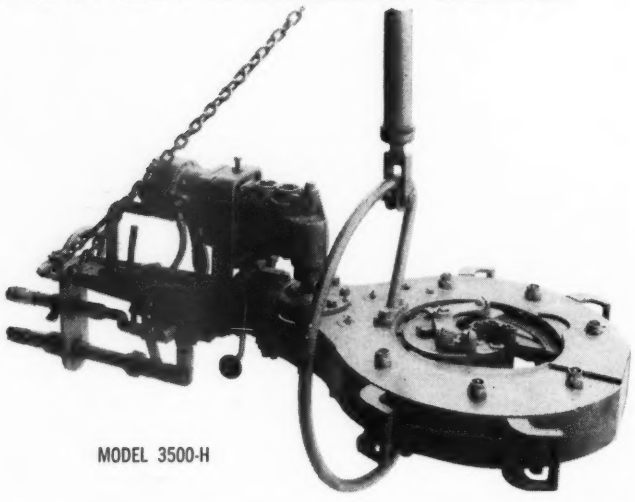

MODEL 3500-H

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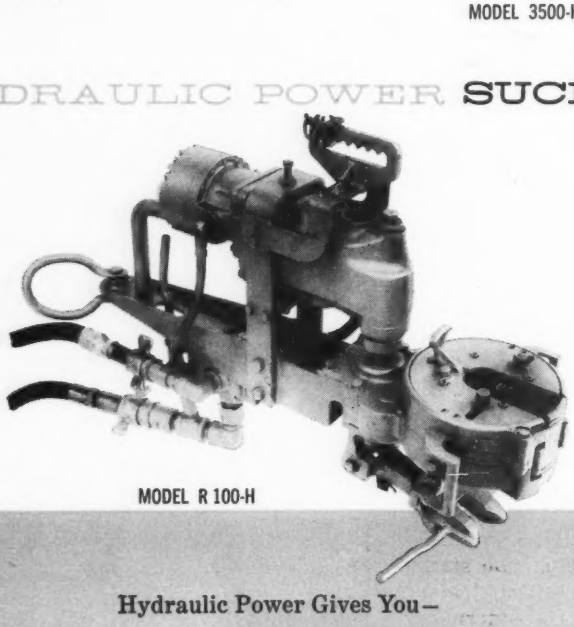

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The Past and Future of API Standards On Oil-Field Equipment

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Abstract

Orderly operations, where previously only chaos prevailed, are in part a direct result of API standardization. Type standardization and interchangeability of the product of different manufacturers brought about an industry economy that has been and will continue to be beneficial to all having an interest in the oil business. API standards are international in scope, and the work of the standardization committees in keeping abreast of advancements in oil-field operations continues to be dynamic. The need of cooperation between the standardization agencies that are concerned with international standards on oil-field equipment, for the purpose of promoting the use of approved international standards, is urgent in the interest of the successful development of oil properties throughout the world.

* * *

It is with a feeling of gratitude that I accept this presentation by Mr. Ladd on behalf of the Central Committee on Standardization, and in responding to Mr. Ladd's remarks, I should like to reminisce just a little and go back to the days when API was in its infancy. As early as 1919, or a little more than 35 years ago, men with foresight, and who were well known in the industry—such as J. Edgar Pew, Captain J. F. Lucy, W. W. Fondren, C. A. Young, and others—saw the chaos that was then prevalent in the oil fields because of a lack of standardization of oil-field equipment and decided to do something about it. The term "standardization" had little or no meaning to the oil-field hand in those days; and certainly it was a word that was not a part of his vocabulary.

Conditions at that time were such that each of the more than a thousand manufacturers of oil-field equipment then competing with each other for business had their individual standard designs. E. W. Clark, who was President of the American Petroleum Institute at the time he addressed the API Standardization Conference at Colorado Springs in June 1927, made the following observation, "When you started to work, the tools, equipment, and oil-country goods were a wilderness of individual effort." Interchangeability of one make of equipment with that of another manufacturer was given very little, if any, consideration.

The very nature of the operations as they occur in the oil fields is such that there must be a ready supply of expendable material and parts conveniently located to the site of operations so that in an emergency this equipment will be available for use at short notice and thus prevent costly delays. When this equipment, as was the case at this time, was of a size and fit that were peculiar to the individual make only, large inventories and stocks had to be maintained so that when a part failed or needed to be replaced, the right part would be available for use. Even with such large inventories, it was by no means uncommon not to be able to find the right part at the right time, and operations frequently had to be shut down for days at a time waiting on the buyer and supplier getting together and eventually furnishing the needed part or making some makeshift repair while crews waited and costs mounted.

This lack of standardization and coordination, and possibly the urge for business brought about by competition, resulted in the use of a multiplicity of sizes which greatly added to the confusion and burdensome cost of operation. The cable-tool method of drilling was more widely used than the rotary method in those days, and typical of the conditions as they existed at that time was the more than 300 different sizes of cable-tool joints and over 200 different sizes of rotary taper joints. Oil-country tubular goods, which comprised casing, tubing, drill pipe, and line pipe, were being finished with threads and couplings that would not permit the product of one manfuacturer to be interchanged with the product of another manufacturer. This same condition existed in the case of sucker rods,

oil-well pumps, derricks, production storage tanks, and other equipment.

In the face of what appeared to many to be an insurmountable task, the API through its Board of Directors authorized in 1923 the appointment of committees consisting of user and manufacturer representatives to develop standards and specifications on various items of oil-field equipment, and in 1924 created the Division of Standardization to administer the work of these committees. The scope of the work was: (1) simplification of sizes; (2) interchangeability between mating parts; (3) specifications to control the quality and grade of material; and (4) maintenance of interchangeability between products of different manufacturers by means of gages and a gaging practice.

Simplification

Concerning the matter of simplification of sizes, the efforts of the API standardization committees resulted in the industry's use of only 14 sizes of cable-tool joints, whereas previously there were more than 300 sizes being used. The number of different derrick heights and base sizes in use prior to API standardization was more than 200, and this number was reduced to only 6 sizes. There are only 16 sizes of rotary taper joints in use today which may be compared to the several hundred different sizes in use before standardization.

After the Committee on the Standardization of Oil-Country Tubular Goods had been active in preparing specifications to control the size and quality of tubular material, a further effort was made to simplify casing sizes. At that time there were 195 items of seamless and electric-weld casing in sizes 4¾-in. to 13⅜-in. OD, inclusive; and this list was reduced to 75 items, or only 38.5 per cent of the original number. In the new list the sizes were extended downward to better provide for slim-hole drilling, and the strength of casing was extended upward to take care of deep drilling. These are but typical examples of the accomplishments of size simplification as a result of the API standardization program.

Interchangeability of Product

Interchangeability of mating parts and of the product of one manufacturer with the product of another manufacturer is an accomplishment for which the API can rightfully be proud. The American petroleum industry is the only industry that has made interchangeability between the products of competitive manufacturers a practical accomplishment, not only throughout the United States of Amercia but in foreign countries where oil is being produced. When one looks back to the time when it was impracticable to mix different makes of pipe in a casing string and considers the many-fold problems that resulted from this state of affairs, we can fully appreciate the importance of product interchangeability. The use of certified master gages made within specified limits or tolerances was the key to maintaining interchangeability of the products of different manufacturers. A system was established by the Division of Standardization whereby every manufacturer desiring to comply with API standards was required to supply himself with the necessary reference master gages which were certified as to their accuracy by the National Bureau of Standards. This system was later expanded to cover all threaded connections, including rotary tool joints, cable tool joints, sucker rods, etc.

Quality Control

Specifications controlling the quality and grade of material for the major items of oil-field equipment have been prepared by the various committees and cover oil-country tubular goods, derricks and portable masts, valves and wellhead fittings, wire rope, tanks, drilling equipment, and pumping equipment and engines. These specifications are international in their application and number 31 at the present time.

Changes in Specifications

There have been many changes made in API specifications since the early days of standardization to keep abreast of conditions and improvements in industry. With the increase in drilling depths and in the number of wells drilled, the work of standardization must of necessity increase proportionately and continue to be dynamic. The work of the Committee on Standardization of Tubular Goods can be cited as an example of the need to continually revise specifications. At the time this committee issued its first specification on casing in 1924, Grade C material with a yield strength of 45,000 psi was the strongest casing available and was adequate for the maximum well depths (3,500 ft.) then drilled. It was not too many years later (1929) that a Grade D casing with a yield strength of 55,000 psi was required; and as drilling depths continued to increase beyond 10,000 ft., a grade of casing with a yield strength of 80,000 psi was needed and was adopted in the year 1938 as an API standard. The committee has recently recommended the adoption of a Grade P-110 casing which will have a minimum yield strength of 110,000 psi or which is two and a half times as strong as the strongest casing available when the casing specifications were first published.

Special Accomplishments

There have been some more or less recent outstanding accomplishments of the several standardization committees among which is the adoption of the round-form thread for casing and tubing. This type of thread has a rounded crest and root and proved to be a more practical thread for use on casing and tubing than the previously used American standard or Briggs thread. Other accomplishments worthy of particular mention are the type standardization of pumping-unit speed-reducer ratings, development of a method of rating portable masts, adoption of a complete series of ring-joint flanges, selection of casing items on the basis of its performance properties, and the establishing of minimum performance properties of API casing and tubing.

As National Chairman from 1929 until 1945 of the Committee on Standardization of Tubular Goods, I recall some of the lively and sometimes heated discussions that took place in our committee meetings in the interest of fitting the pipe specifications to the changing conditions and needs of the oil industry. Painstaking effort and thought were involved in establishing tolerance limits for pipe threads and the adoption of a different form of thread for casing and tubing. The Pipe Committee pioneered the specification of tolerances for all product

thread elements (API Std 5B), and thereby assured industry of a more satisfactory product than was previously available. Experience in the use of the round thread revealed such benefits that a saving in time of about 20 percent was effected in running casing with this form of thread, and the joints were easier to stab and made up more uniformly.

The development of a full line of ring-joint flanges by a subcommittee of the Pipe Committee filled a most urgent need, and these standards are now a part of American Standard B16.5: Steel Pipe Flanges and Flanged Fittings. Before the dimensions of ring-joint flanges were established, it was not uncommon in the oil fields, when moving a drilling rig, to lose the ring of the ring-joint flanges then in use. Because the dimensions of the ring and of the ring groove in the flanges were different in the case of the several makes of flanges, the men on the rig, not knowing the make of flange they were using and being unable to find a replacement ring at hand, would often wastefully throw away perfectly good flanges and in their place use a set of flanges of another make complete with ring.

Publication of the minimum performance properties of casing and tubing in API Bul 5C2 provided the information so vitally needed for the economic and safe use of deep-well casing and tubing strings. This information was the successful result of considerable testing of material and a careful study and analysis of the data on the part of those taking active part in the work of the Pipe Committee.

Standards in National Emergency

At the time the United States became involved in World War II as a belligerent country, a project was under way to establish National Emergency Steel Specifications. It speaks well of the calibre of the work of API standardization to say that the Institute's specifications on oil-country tubular goods (Std 5A) and line pipe (Std 5L) were adopted by the Iron and Steel Division of the War Production Board with but minor changes, as the specifications to be used in administering steel priorities and allocations involving the manufacture and use of this type of tubular material. Also, the Institute's specifications on production tanks were accepted by the United States Army without change during this period of emergency, and resulted in greatly simplifying procurement at a time when supply was most urgent.

International Standards

In the matter of international standardization, API standards have been accepted by and are being used in practically every foreign country that is today producing oil. Attendance at meetings of API standardization committee meetings includes representatives of many countries who feel it necessary by their presence to keep in touch with the deliberations and work of the committees. Also, there are many leading equipment manufacturers in foreign countries who have applied for and have been granted authority to apply the official monogram of the API to their products, thus indicating full compliance with the Institute's specifications. There are at present 575 manufacturers in the United States and 233 manufacturers located outside of the United States who have authority to use the API monogram on their products. The dynamic nature of the program is again illustrated by the fact that the number of licensed manufacturers has increased by 154, or 24 percent, since the first of the year. By means of a system of gage calibration and certification as to gage accuracy by recognized official testing agencies in various foreign countries, it is now possible to successfully interchange equipment made to API specifications but whose source of manufacture is in different countries.

The component parts of a rotary or cable-tool drilling rig purchased from manufacturers in 15 different countries can now be assembled at any well location in the world to drill satisfactorily to present maximum depths. Tools that are manufactured in Austria will fit perfectly with those made in England or the United States of America. Casing, tubing, drill pipe, or line pipe obtained from Germany will interchange with similar pipe made in Japan and give service comparable to that of pipe made at an individual pipe mill.

Savings

Monetary savings attributed to API standardization cannot be accurately determined. Since the program was begun, however, many billions of dollars worth of oil-field equipment has been manufactured to these API standards. A figure of 10 percent of the dollar value of material produced is now generally taken as the savings that accrue to standardization, and this figure will, it is believed, put the savings at between 50 and 100 million dollars annually.

Future of Standardization

In looking away from past accomplishments in the field of API standardization and toward the future, the problems with which the industry is confronted in having to drill ever deeper and offshore wells in the search for petroleum will require vigilance on the part of the API standardization committees if they are to keep abreast of conditions. There is a trend to slim-hole drilling, to completing two or more wells in a single bore hole, and to the automatic operation and control of oil properties. Operations such as these appear to provide a fertile field for the standardization and simplification of the equipment needed.

Deep drilling, defined as the depth range of 15,000 to 20,000 ft., will require a grade of drill pipe that is better able to withstand the combined loads imposed on this item of equipment than the present highest grade of API drill pipe. Also, casing programs may have to be changed if these depths are to be reached with a workable-size bore hole; and this, in all probability, will require changes in the API list of casing sizes. Abnormal pressures being encountered in many areas today are such that API tubing is entirely inadequate although I understand a higher grade than Grade N-80 tubing has been recommended by the Pipe Committee for adoption, and consideration is being given to needed heavier weights of tubing. Wellhead equipment, including valves and fittings, is an item which must undergo a radical change if it is to safely handle well pressures in excess of 10,000 psi. To continue using API ring-joint flanges for this equipment at these higher pressures would require such enormous-size

flanges and bolting as to make them impracticable. This problem is being solved by the use of pressure-energized seals.

The American Standards Association, Inc. (ASA) is an organization which is devoted to obtaining national recognition of standards formulated by competent interests. As its object, ASA serves as a clearing house for information on standardization work in the United States and foreign countries and furthers the standardization movement as a means of advancing national economy and promoting a knowledge of and the use of approved standards.

American Petroleum Institute standards, as previously mentioned, are international in their scope; and in the English speaking countries, these standards have been adopted by several of the national standards agencies or have been used as the basis for the promulgation of related standards in which the interchangeability provision of API standards has been preserved. The British Standards Institute, which is the counterpart in Great Britain to the American Standards Association, has a very complete and extensive program on the standardization of equipment for use in the oil fields and is following API standards in almost every particular in its specifications.

In the international field, there is an international standardization agency which functions under the name of the International Organization for Standardization (ISO) and which has before it several proposals including the development of standards for pipe-line materials in oil-field operations.

The importance of world-wide equipment standardization to the successful development of properties throughout the world should be of particular concern to those charged with the responsibility of developing and maintaining acceptable standards on oil-field equipment. It appears to me that the various agencies that can do the most good in the field of international standardization, such as the API, ASA, BSI, and ISO, should endeavor to find a common ground on which to meet and cooperate with each other in the interest of international economy and of promoting a knowledge of and the use of approved international standards.

Presented at A.P.I.'s Annual Meeting November 15.

Richfield Sponsors Initiative Measure

Charles S. Jones, Richfield Oil Corporation president, and R. W. Ragland, vice president, have filed a request for Title and Summary of a proposed initiative measure for oil conservation with the Attorney General of California.

In relation to the request, Jones made the statement following.

"A huge increase in California's recoverable oil reserves will result from an oil conservation measure which we have filed today with the Attorney General.

"Our initiative differs sharply from other oil measures brought before the public in the past. It does not permit market demand curtailment and pro-ration. It is designed solely to give the oil industry legal tools, to match its know-how, to carry out production practices necessary to enable the industry to be good stewards of California's oil reserves.

"It will enable a majority of the operators in a field to bring about practices which will prolong immeasurably the lives of fields in which they are employed, insure continuing employment to those in the industry far beyond present expectations, and provide a strong bulwark for the cornerstone represented by oil production that underlies California's whole economy.

"The public welfare involved in good oil conservation is indicated by the fact that in 1954 the various petroleum products derived from California oil production added about three billion dollars of new wealth to the State.

"For two years Richfield has conducted a public information program about oil.

"As a public service and in our own self-interest, we have been telling the people of California how tremendous quantities of recoverable oil are being wasted by being left unrecovered in the ground.

"Richfield's engineers have told meetings of women's groups, community leaders and conservation groups how the physical waste of oil could be prevented, and the size of the public's stake in good oil conservation practices.

"These meetings have always ended with strong expressions of support for action that would protect the public interest in this vital natural resource.

"It is because of the very favorable response to the information program that we decided to sponsor an initiative measure for an oil conservation law and bring the matter directly before the people.

"Not enough new pools are being discovered in California to keep oil production equal to ever-increasing demand. We are now sending dollars abroad for the purchase of oil—dollars that would otherwise be circulated among our own people in payment for goods and services of all kinds.

"There is one sure way to increase California's reserves of recoverable oil and thus assure California of continued prosperity. That way is unit operation in as many oil pools as possible. California producers need the law to facilitate unitization.

"My associate, Mr. Ragland, and I are the sole sponsors of the initiative petition. But discussions which we have had recently with other oil people indicate that a majority of the industry will support the proposal."

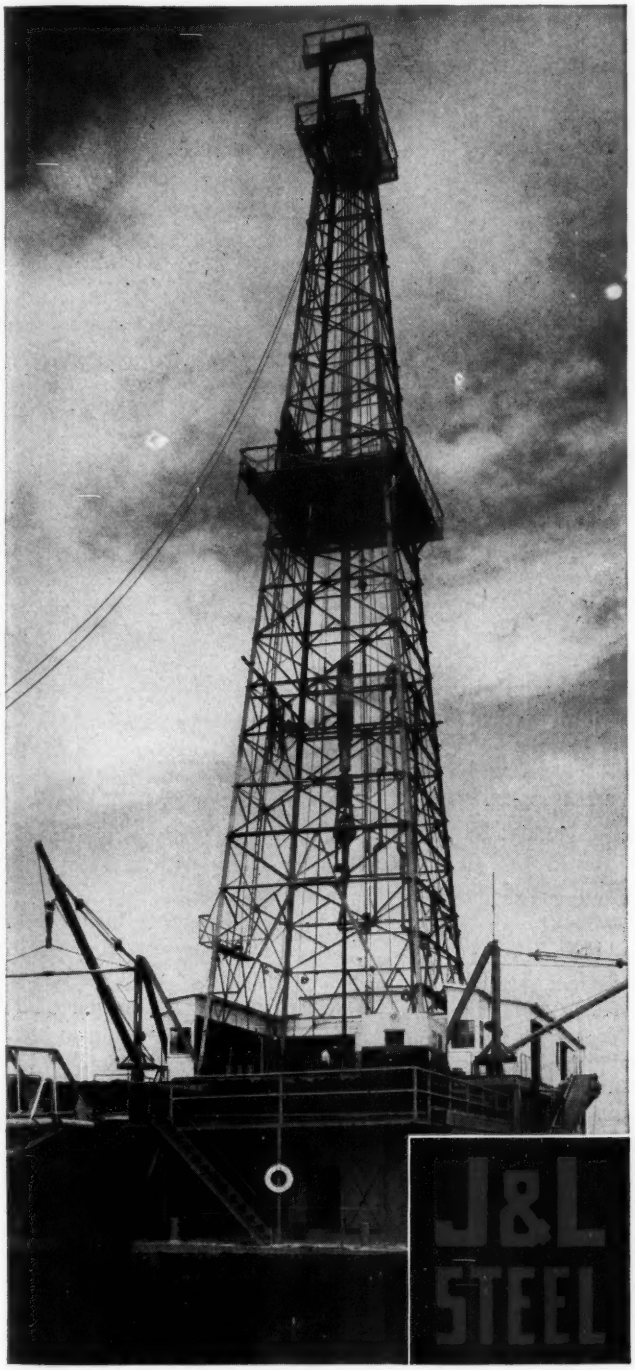
Pike Drilling Sold To Republic

S. I. Williams, President of Thomas P. Pike Drilling Co., and John J. Pike, President of The Republic Supply Company of California, announced plans for the acquisition by Republic of all the drilling concern's equipment.

Republic Supply will not go into the contract drilling business. This move will enlarge the scope of Republic's activity in the rental and sales of oil field drilling equipment.

Upon completion by Pike Drilling Co. of present contracts in progress, S. I. Williams and H. G. Haney, President and Vice-President respectively of that concern, plan to start a new contract drilling firm under the name of Haney and Williams Drilling Company.

WORLD'S DEEPEST OIL WELL!



Richardson & Bass Drilling Rig No. 25 at well known as Richardson & Bass (Louisiana Account)—John W. Mecom —Freeport Sulphur Company—Humble-Louisiana Land & Exploration—State Lease 2414, No. 1-L. Rig and boilers are mounted on two huge barges sunk to bottom of marsh to provide firm foundation for operations.

Record depth of over four miles attained in Richardson & Bass Louisiana Well using J&L Drill Pipe and J&L Wire Rope exclusively

Wednesday, November 9, 1955, marked another milestone in the spectacular history of the oil industry. On that day, Richardson & Bass and their associates in this enterprise, John W. Mecom and Freeport Sulphur Company, broke the world's record for deep drilling in their well in Plaquemines Parish, Louisiana, 35 miles southeast of New Orleans.

This well, now more than four miles deep, has penetrated the earth to depths never before explored. Pressures are being encountered to which drill pipe never before has been subjected.

In discussing this new world's record well, J. E. (Ed) Hill, General Manager of Richardson & Bass Drilling and Producing Interests, said: "This well has been drilled from the surface to its total depth without a single pipe failure, a tribute both to the skill of the drilling crews, and to the quality of the pipe used."

Every foot of the drill pipe in the well is J&L Drill Pipe. To a depth of 13,655 feet, J&L Blue Ribbon Drill Pipe was used. From that point to the bottom, the string was replaced with J&L Blue Ribbon Vanadium Drill Pipe. Every foot of the wire rope which supports the entire four mile string of drill pipe is J&L Permaset Wire Rope. Hundreds of tons of J&L Casing have been set in the well, with additional hundreds of tons standing by for use when the well is completed.

To provide the high strengths needed in oil country tubular products for today's deep well drilling, J&L developed and has in operation extensive new finishing facilities—facilities which are already being expanded to keep pace with the oil industry's growing needs.

Interesting facts about world's deepest well

(As of November 28, 1955)

Total depth 22,209 ft., nearly 4¼ miles, equal to height of 15 Empire State Buildings . . . previous record depth 21,482 ft. . . . drilling began February 26, 1955 . . . total drilling time 205 days . . . total testing time 71 days . . . total elapsed time 276 days . . . bottom hole pressure 20,650 lbs. per sq. inch . . . bottom hole temperature 350° F. . . . time required to pull entire string of drill pipe to surface, replace bit and reset pipe is about 11 hours . . . stretch in drill pipe at extreme depth is about 20 feet . . . total cost of well estimated at between $1¾ and $2 million.

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Personalities IN THE NEWS

Hancock Heads Western Oil & Gas Association

John W. Hancock, president of the Hancock Oil Co., has been elected president of the Western Oil and Gas Association, trade group representing leading producers, refiners, and distributors of petroleum products in the Western states. He took office January 1, 1956.

Hancock pledged a continued drive to "maintain the principles of free enterprise which have permitted the industry to offer high quality of service and product to the benefit of the consumer".

John W. Hancock

The Association will increase the activity of its tax, zoning, safety and fire protection, and information committees, which are operated year-around as the industry's contribution to the economic well-being of each of the communities in which it operates, he said.

Hancock stated he felt the four most important problems confronting the industry in the West were:

The necessity of making clear that the oil industry has, through eight years of effort in air pollution control, reduced its contribution to the Los Angeles smog problem to where it can be classed as a minor contributor, and that it is working continually within the industry, and with other segments of the community to eradicate that problem.

The need for elimination of direct federal controls on the production of natural gas so that adequate supplies of that fuel can be made available at a reasonable price.

The orderly, proper, and equitable development of California offshore petroleum reserves to meet the increasing demand for these products and to provide additional revenues for the State.

The retention of the historical depletion allowance for all natural resources, which encourages development and risk-taking so that supplies and reserves will be available for both peacetime and defense purposes.

Hancock succeeds Chas. S. Jones, president of Richfield Oil Corporation, who served as Association president for two years.

Other officers elected were: S. F. Bowlby, vice president, Shell Oil Co., first vice president, Olen Lane, vice president, Continental Oil Co., second vice president; T. H. Wallace, vice president, Western Gulf Oil Co., treasurer, and Felix Chappellet, Association vice president and general manager.

Newly-elected directors were: H. D. Campbell, president, Franco Western Oil Co.; E. B. Hall, president, Drilling and Production Co.; James T. Wood, Jr., vice president, The Texas Co.; John A. Woodward, president, St. Anthony Oil Corporation.

The following directors were re-elected: L. L. Aubert, president, Bankline Oil Company; John S. Bell, Area Manager, Humble Oil & Refining Company; F. W. Borden, vice president, Sunray Mid-Continent Oil Company; Harold L. Briggs, vice president, Chanslor-Western Oil and Development Company; B. E. Devere, president, Pathfinder Petroleum Company; J. M. Feldman, president, Golden Bear Oil Company; Chas. S. Jones, president, Richfield Oil Corporation; W. M. Keck, Chairman of the Board, The Superior Oil Company; Fred M. Keller, president, Oceanic Oil Company; Emil Kluth, vice president, Pacific Western Oil Corporation; A. C. Mattei, president, Honolulu Oil Corporation; E. J. McClanahan, vice president, Standard Oil Company of California; Downs McCloskey, manager, California Division, Amerada Petroleum Corporation; Ross McCollum, president, National Oil Company; R. L. Minckler, president, General Petroleum Corporation; S. B. Mosher, president, Signal Oil and Gas Company; Howard C. Pyle, president, Monterey Oil Company; Herbert L. Reid, executive vice president, Kern County Land Company; Wm. Reinhardt, vice president, Union Pacific Railroad Company; George Sowards, division manager, Ohio Oil Company; David T. Staples, president, Tide Water Associated Oil Company; Reese H. Taylor, president, Union Oil Company of California; Jasper W. Tully, president, Reserve Oil and Gas Company; R. R. Von Hagen, president, Lloyd Corporation, Ltd.

Ted Jones, owner of Ted Jones Drilling Company of Los Angeles, has reported plans to organize an American Company to develop oil in Cuba. Jones, who is head of the Impresas Petroleras Jones de Cuba, S. A. concern, said the new company would be known as the United Cuban Oil Company.

Now the finest of needle valves is available

416 Stainless throughout...

In the Marsh Needle Valve, operating men found a valve that was better all the way through. Then came the call for a valve of like quality and precision for corrosion service . . . to be 416 stainless steel throughout.

The valve illustrated here is the answer. Like the parent valve, this new valve has safety and strength to spare . . . guaranteed for working pressures up to 10,000 psi . . . equally efficient and effective in any lower pressure range.

It too is machined from solid bar stock—in this case, 416 stainless steel. Its precision-ground and-machined stem is hardened 416 stainless. Packing is the special "Marpak" ring . . . one-piece, non-binding, long-lasting. So finely built is this needle throttling and cut-off valve that it can be easily throttled down to exceptionally fine regulation even on extreme pressure.

Read the list of features opposite. Then write for new bulletin No. NV-2 containing complete details.

The new all stainless valves (Series 1924) includes globe and angle patterns with double female connections in sizes ⅛", ¼", ⅜", ½", ¾", 1"; also globe and angle valves with male inlet and female outlet in sizes ¼" and ½".

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Sales affiliate of Jas. P. Marsh Corp.

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"THE STANDARD OF ACCURACY"

416 Stainless Steel ...all the way through!

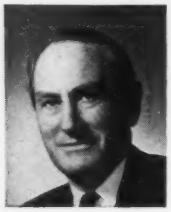
- Body and stem guide machined from bar stock.
- Valve stem, hardened stainless.
- Packing, special Marsh "Marpak" moulded ring.
- Fine stem threads for strength and precision throttling.
- Deep inlet and outlet thread chambers.
- Bodies marked in accordance with MSS regulations.

Maximum Working Pressure 10,000 P.S.I.

Water, oil, gas or corrosive fluids not injurious to 416 stainless steel.

Important Changes Announced at Schlumberger

Four important Schlumberger Well Surveying Corporation management personnel changes were announced recently by Pierre Schlumberger, President.



Taves

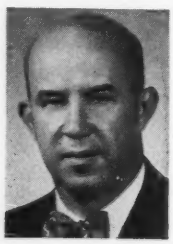
Loy

Fritz G. Taves, former Pacific Coast Area Manager and recently on the staff of the Schlumberger President, has returned to his former post with headquarters in Los Angeles. Milton E. Loy, former Pacific Coast Area Manager, has been named Mid-Continent Area Manager in Tulsa, Oklahoma. Charles K. Ruddick, former Mid-Continent Manager, has moved to New Orleans as manager of the Southeast Area. Charles A. Doh, former Southeast Manager at New Orleans, has been transferred to Houston to take on the newly created position of Manager of Customer Relations.

Mr. Taves received a B.S. Degree in Petroleum Engineering from the University of California in 1922. From 1922 to 1927 he was associated with the Miley-Keck and E. J. Miley. From 1927 to 1929 he was associated with the Richfield Oil Corporation. He served in the California State Oil Umpire's Office from 1929 to 1935, in which year he joined Schlumberger. He is a member of the A.I.M.E., A. P. I., and Petroleum Production Pioneers. During World War II, Mr. Taves served in the U. S. Navy and holds the rank of Captain, U.S.N.R.

Mr. Loy joined Schlumberger in 1940 after graduating from the University of California in 1938. He has served as Schlumberger's Location Manager in Sacramento and Bakersfield, California. In 1948, Mr. Loy was made Assistant Pacific Coast Manager and Promoted to Manager in 1954. He has been very active in the A.A.P.G., A.P.I., and A.I.M.E., in which organizations he has held several important offices.

Ruddick



Doh

Mr. Ruddick graduated from the University of Illinois in 1934 and received his Masters Degree in Electrical Engineering from MIT in 1935. He has served Schlumberger in various locations in Oklahoma, Texas and Kansas. He was made the Assistant Division Manager in Illinois in 1945. In 1951, he was made Assistant Area Manager of the Mid-Continent Area, and was promoted to Area Manager in February, 1952. Mr. Ruddick has always taken an active part in the affairs of the A.I.M.E. and A.A.P.G.

Mr. Doh, as Manager of Customers Relations, a newly created position in Schlumberger's Sales Department, will devote his time to consulting with the oil companies about services and techniques. Mr. Doh is a graduate of the University of Arts & Crafts in Paris, France, receiving a M. S. Degree there in 1933. He became associated with Schlumberger in 1934 and worked in various locations in Roumania, Venezuela, Texas, and Illinois. He served as Illinois Division Manager from 1945 to 1951. In 1951 he went to New Orleans as Manager of the Southeast Area. Mr. Doh has always taken an active part in the affairs of the various Petroleum Societies.

Bates Advanced at Shell

Appointment of William F. Bates to the position of Assistant to the Vice President in Shell Oil Company's Pacific Coast Area exploration and production office in Los Angeles was announced by S. F. Bowlby, vice president and senior company officer on the West Coast.

A native of Los Angeles, Bates started with Shell in 1934 as a trainee following his graduation from Stanford University as a civil engineer. His progress in the company's production department has been steady throughout his 21 years service and has given him experience in all of California's important oil producing centers.

W. F. Bates

Bates' first important managerial position was in Bakersfield when he was made the San Joaquin Division Mechanical Engineer in 1942. The following year he served in the same capacity in Ventura for the Coastal Division. Early in 1944 Bates was promoted to Drilling Engineer in the Los Angeles Area office, a position he held until he was named General Drilling Superintendent in 1951. Two years later he was promoted to Production Manager of the Coastal Division, where he has been until his recent appointment.

Sanders Retires at G. P.

Paul E. Sanders, assistant manager of General Petroleum Corporation's refinery at Torrance, retired January 1, 1956 after 36 years' service.

Sanders was employed by General Petroleum in 1919 as a furnaceman. In 1929, as a foreman, he and 33 other men put "on stream" the company's Torrance refinery which had a capacity at the time of 35,000 barrels per day. Today some 1200 persons are employed by the company at the Torrance refinery, which now has a capacity of some 125,000 bbls. per day. Sanders was appointed refinery superintendent in 1945 and was made general superintendent five years later. He became assistant manager of the refinery in 1952.

He is a past president of the company's Foremen's Association and has served as "Kingfish" of the company's 10-20 Club, which is composed of em-

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- Hookwall Anchors
- Tubing Catchers
- Tubing Safety Joints
- Tubing Strippers
- Tubing Oil Savers
- Drilling Heads
- Blowout Preventers
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Sold By Leading Oil Field Supply Stores Everywhere

Paul Sanders

R. M. Cook

Paul E. Bermingham

ployees who have more than 10 years' service with the company.

A native of Arkansas, Sanders attended the University of Arkansas. He came to Los Angeles in 1909. Sanders resides with his wife, Myrtle, at 3700 West 62nd Street, Los Angeles. They have a daughter, Mrs. Vivian Crawford, who is also a resident of Los Angeles.

Sanders was honored at a cocktail party on December 20th at the Petroleum Club (Los Angeles) attended by the manufacturing department staff and a group of executives, including R. L. Minckler, president of General Petroleum.

"Bob" Cook Purchases Formation Testing Company

R. M. Cook has purchased the patents and physical assets of the Acme Tool and Testing Company of Long Beach, California, and is now operating an oil well testing service under the name of Cook Testing Co.

The Cook Formation Tester, it is stated, is the original successful controlled opening tester. It is noted for its simplicity, ruggedness, ease of operation and superior firing mechanism. It was invented and placed on the market by Boyd McKinley of Acme Tool and Testing, who will continue his connection with this tester by remaining with Cook Testing Company.

"Bob" Cook, who has had many years of sales and executive experience with such prominent oil tool and service concerns as Pacific Cementing, B. J. International Cementers, McCullough Tool Co., Security Engineering Company and Great Lakes Carbon has formed the Cook Testing Co. to provide a complete formation testing service of the very highest quality, including bullet and jet perforating, in conjunction with testing. "Hi" Whitney formerly of Security Engineering Co. and John Dickman formerly Chief Engineer of Baash-Ross are associated with Cook Testing Co. Expanded shops, equipment and service facilities will soon be available to serve California operators. Service facilities will be expanded in the very near future to include the Permian Basin, Gulf Coast and Canada.

Bermingham Succeeds Woods at G. P.

Paul E. Bermingham has been elected a director and appointed general counsel of General Petroleum Corporation, according to an announcement by Robert L. Minckler, president. He succeeds in both posts Don W. Woods, who is retiring after 40 years' service.

James A. Grace, manager of the company's contract bureau, has been named secretary of the corporation, succeeding Woods.

M. D. Gephart, assistant manager of the contract bureau, has been named assistant secretary, succeeding Grace.

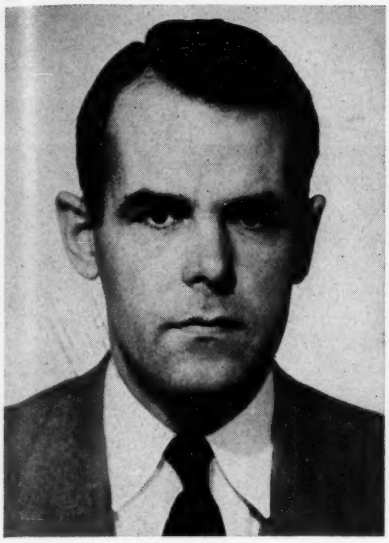
Bermingham joined General Petroleum Corporation in July, 1953 as associate general counsel. For ten years prior to that, he was a member of the legal staff of Socony Mobil Oil Company in New York. General Petroleum is the western affiliate of Socony Mobil. A native of New York, Bermingham was graduated from Colgate University and the law school of Columbia University. He is a member of the American Bar Association. The parents of three sons, Bermingham and his wife live at 1478 Waverly Road, San Marino.

Grace has been manager of the contract bureau of General Petroleum since 1944. He joined the company in 1937 after being engaged for several years in real estate and banking. He is a veteran of World War I. Mr. and Mrs. Grace live at 3156 Charing Cross Place, Glendale.

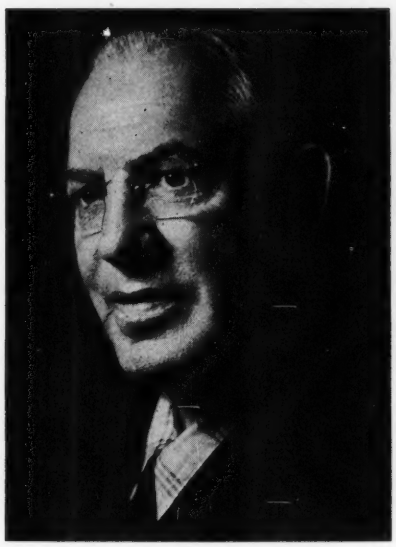
Gephart, who resides at 10207 McNerney Street, South Gate, joined General Petroleum in 1937. He was assigned to the contract bureau in 1945 and has served as its assistant manager since 1953. A graduate of the University of Oklahoma, Gephart is an infantry veteran of World War II.

Brown Replaces Bates At Shell

Arthur L. Brown has been named the new Division Production Manager for Shell Oil Company's Coastal Division in Ventura, S. F. Bowlby, Vice President and senior company officer on the West Coast, announced recently.



Arthur L. Brown



Leo Cypher

Joe Schlarb

Brown replaces William F. Bates who has been promoted to the position of Assistant to the Vice President in the Los Angeles office where the Pacific Coast Exploration and Production Area is headquartered.

A native of Rhode Island, Brown started with Shell in 1939 following his graduation from Brown University as a mechanical engineer. During his first few years with Shell, he was given an extensive training program which included assignments in the manufacturing, marketing, exploration, production, transportation and supplies departments.

Following his five-year tour of duty with the Navy, Brown was made an exploitation engineer in the Shell's Coastal Division office in Ventura. In October 1953 he was placed in charge of the production operations at the Salt Lake City Division following the Nevada oil discovery by Shell.

Baash-Ross Announces Relocation of Sales Personnel In West Coast Area

Leo Cypher, West Coast Area Sales Manager for the Baash-Ross Tool Company, Division of Joy Manufacturing Company, has announced the following relocation of the sales personnel in the West Coast Area.

Bill Grier, formerly in Los Angeles City Sales, has been assigned to Long Beach District Sales with headquarters in Long Beach.

Ed Carne, formerly in Long Beach District Sales, has been assigned to San Joaquin Valley Sales with headquarters in Bakersfield.

Harold Adams, formerly in San Joaquin Valley Sales, has been assigned to Coastal District Sales with headquarters in Ventura.

Bob Drueke, formerly in Coastal District Sales, has been assigned to Los Angeles City Sales.

All of the above new assignments become effective as soon as the various personnel can assume their new duties.

Schlarb Joins Emsco

H. J. Schlarb, one of the best known authorities on swivel joints and fittings in the United States, has joined Emsco Manufacturing Company as Sales Manager of the Swivel Joint Division, according to an announcement by W. C. Kinder, Vice-President of Emsco. This reflects steady growth of business in Emsco's swivel joint business and plans for expansion of activities of this division in the oil, aviation, chemical and other industries.

Schlarb brings to his new post a broad background of experience in the swivel joint business having been assistant sales manager, Southern California district manager and special representative of Chiksan during the past eleven years. He is president of the Los Angeles Chapter of Nornads, past president of the Petroleum Equipment Salesmen's Association of Los Angeles, and a member of the American Petroleum Institute, the Society of Automotive Engineers and Petroleum Club of Los Angeles.

Emsco is one of the leading manufacturers of oil field drilling and pumping equipment used throughout the world and maintains large, modern plants in Los Angeles, California and Houston and Garland, Texas. Emsco swivel fittings are made in many sizes for practically every type of service; from high vacuum to pressures of 15,000 p.s.i., and from sub-zero temperatures to 750 degrees Fahrenheit.

Thomas M. McDonough, Ohio Oil Company assistant petroleum engineer at Bakersfield, has been transferred to Chickasha, Oklahoma.

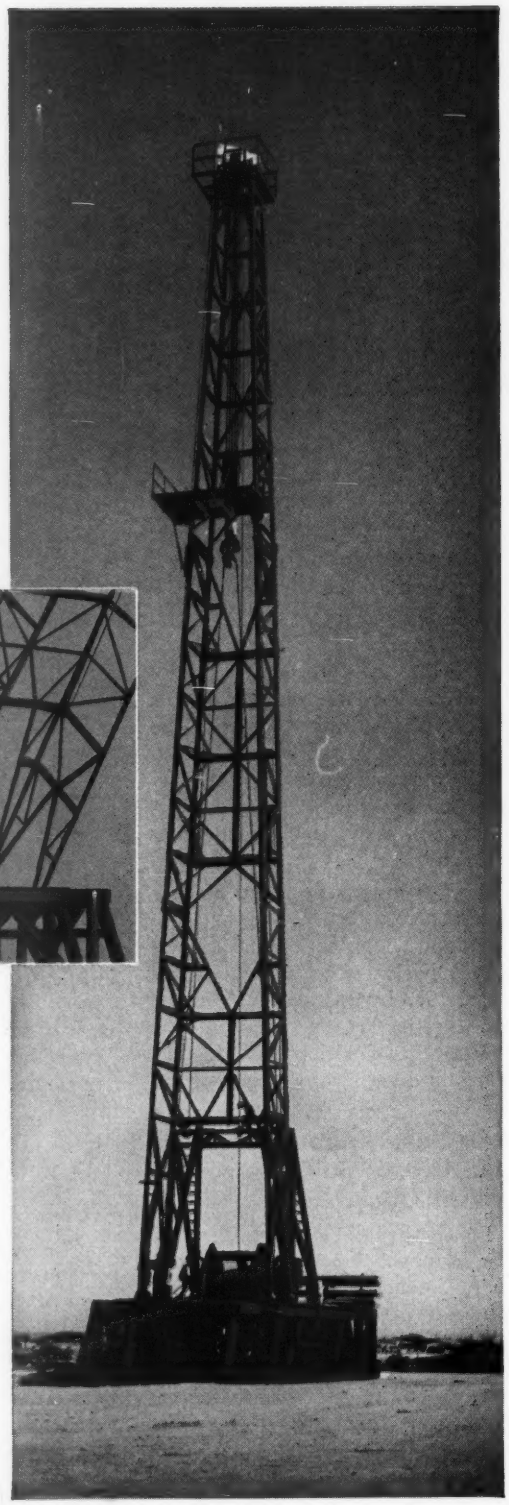
Victor Church and J. H. Beach have entered independent oil exploration, with headquarters at Bakersfield, but will continue as geological consultants for Oceanic Oil Company.

The newly-elected chairman of the Wildcat Committee of the Western Oil and Gas Association for the ensuing year is H. J. (Eddie) Stroud of Signal Oil & Gas Company. Frank Carter, General Petroleum Corporation, was named vice chairman; Stanwood I. Williams, Thomas P. Pike Drilling Company, treasurer; and Leo Metzler, WOGA secretary.

Maximum Portability, Open-Face Design and Ground-Level Assembly Make

EMSCO MASTS

preferred everywhere by experienced drillers



Designed to stand up under hard usage and save time and money for oil well drillers, EMSCO MASTS offer a noteworthy combination of maximum portability, open-face design and ground-level assembly.

Drillers everywhere like the unit design of mast and superstructure which makes assembly on the ground easy and safe. Open-face design makes possible fast operation of various size traveling blocks. Emsco Masts can easily be moved in one piece or nested into sections of roadable widths. Highly suited for barge installation and in oil fields everywhere.

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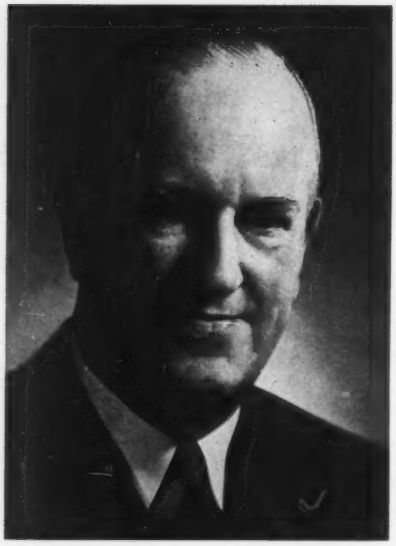


The retirement of E. W. Masters, Executive Assistant to the Pacific Coast Area Vice President for Shell Oil Company after nearly 40 years in the oil industry, 30 years of which were spent with Shell, was announced recently by S. F. Bowlby, vice president and senior company representative on the West Coast.

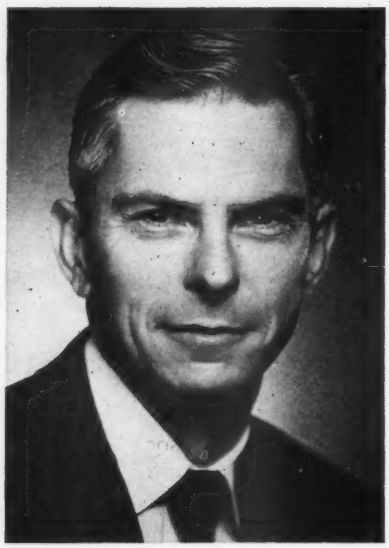
Masters started his career in the oil industry shortly after he graduated from Stanford University in 1918. Before joining Shell he worked for Standard Oil of New Jersey and several other smaller companies in the West. In 1926 he started with Shell as a production engineer and shortly afterward made a trip to Dutch East Indies on a special oil production mission. He returned to the Los Angeles Office where a series of rapid promotions led to his being named chief exploitation engineer in 1932.

Steady progress in the Shell Production department took Masters to Ventura, Bakersfield, oil fields as well as in the Los Angeles Basin where he served successively as Production Superintendent, Division Superintendent, Division Manager, Pacific Coast Area Production Manager and then in his most recent capacity.

Masters is a native of Portland, Oregon, but has made his home in California since joining Shell. He and his wife, Holly, now reside at 430 South Greenwood Avenue, Pasadena. Their married son, Robert, also lives in the Pasadena area; and their daughter, Margaret, works for the Ford Foundation in Palo Alto. All are Stanford University graduates.

While he does not state at this time having any specific plans for his retirement, Masters indicates he will continue to be active after he has taken some vacation. He is a member of the Petroleum Club and the California Club.

George Atha, a familiar and successful figure in California oil development for more than two decades, has decided to subdivide his beautiful ranch property at Indio and one mile east of Shadow Mountain.



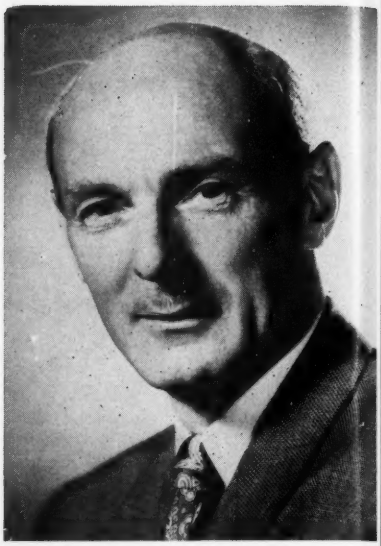
John E. Young has been appointed Administrative Assistant to the Vice President in the Shell Oil Company's Pacific Coast Area Exploration and Production office in Los Angeles, according to announcement by S. F. Bowlby, vice president and senior company representative on the West Coast.

Young, a native of Wyoming, attended the University of Wyoming and George Washington University in Washington, D.C. He graduated with a B. A. degree in Business administration.

He joined Shell in 1937 as a roustabout in Bakersfield and was promoted shortly thereafter to the treasury department in the Los Angeles office. In 1941 he was transferred to Ventura in the treasury department. Two years later, he returned to Los Angeles and was assigned to the Personnel and Industrial Relations Department where he was a supervisor in charge of records, payroll and accounts. Just before his recent promotion, he served one year as a senior analyst in charge of salary administration for the Personnel and Industrial Relations Department.

Young and his wife, Soule, and their 13-year-old son, Rex, live at 1708 Midwick Hill Drive in Alhambra. The Youngs are active in Republican Party organizations in the San Gabriel Valley and Mrs. Young is a member of the Board of Directors of the Alhambra Republican's Club. Rex is active in Alhambra High School sports.

Paul Sanderson, Division Manager of E. H. Edwards Company, announces the termination of distributorship with Republic Supply Company and as of January 9th, is located at temporary quarters at 2123 East 7th Place, Los Angeles 21, California, Phone TRinity 4741. The contract for new office and warehouse has been awarded and until its completion, they can offer direct factory service to all.



Stanley H. Oatway, Assistant to the Pacific Coast Area Exploration and Production Vice President, retired at the year-end after 30 years' service with Shell Oil Company.

Born in Devonshire, England, Oatway joined Shell in 1925 on a Shell exploration torsion balance crew in the San Joaquin Valley. Thereafter he progressed through various managerial positions in San Francisco, Los Angeles, New York and St. Louis. Before coming to Los Angeles seven years ago, he served ten years as Assistant to the Executive Vice President in the company's San Francisco office, in which position he was responsible for general project and policy planning covering Shell's overall operations on the Pacific Coast.

The Oatways and their youngest son live in San Marino, California. An elder son returned to Stanford University in January, having just completed two years of Army service in the U. S. and Germany, and their daughter is married and living in Pasadena.

Walter C. Roberts culminated 40 years as a pipeliner during the recent holiday season when he was feted at numerous in-

formal gatherings of his many oil industry friends and fellow employees at Shell Oil Company. Roberts has been manager of the company's pipe line operations on the West Coast for the past decade.

Roberts joined Shell, following his U. S. Navy service, as a dispatcher at the Corral Pump Station office near Tracy, California. In 1923 he was promoted to Chief Dispatcher for Shell's California pipe lines and transferred to the Area's exploration and production headquarters in Los Angeles. He has served in various assignments in the department with steady progress and was named department manager in 1946.

A native Californian, Roberts was born in Chico. He and his family now reside in Sierra Madre. He is a past president of the Western Pipeliner's Club.

Roberts plans an extended trip throughout the United States as his first retirement project.

Officials of the new Apes Drilling & Equipment Corporation at North Hollywood include Victor J. Nelson, Irving Miller and Jerry Peyton.

Reserve Oil and Gas Company has a new telephone number in Kern County which may be dialed through the exchange at Bakersfield. The new number is FUlton 3-0736.

Appointment of Claude M. (Tex) Leverett as chief scout for Union Oil Company's Pacific Coast area has been announced. He succeeds Harvey M. Lee and his headquarters will be at the company's main office in Los Angeles.

Earle M. Jorgensen, president of the West Coast steel products distributing organization of Earle M. Jorgensen, Inc., has been elected a director of Hall-Scott Motors, Inc.

Union Oil's Jerry Luboviski has succeeded Shell Oil's Jack Sembower as chairman of the Western Oil and Gas Association's public relations subcommittee.

Duff Takes Texas Land

John E. Duff, Beverly Hills, and John Eisner, Texas, are drilling below 1000 feet with a well on a 960-acre farmout from Shell Oil Company in Howard County, Texas. Beside the farmout they hold by lease an additional and adjacent 160-acre parcel. The well, situated in the Farel field area, has been pointed for production in the San Andreas zone under rights incorporated in the farmout.

International guests and speaker of the evening at the December 14, 1955 meeting of the Los Angeles Chapter of Nomads: Left to right (standing)—W. M. Thompson of D. & E. from Arabia; Robert L. Walker of Shell en route to The Hague; Jim Welty of Cal-Tex Sumatra from Borneo; John Reeves of Baker Transworld en route to Maracaibo; Mercer Martin of I.P.C. from Iraq; Lawrence R. Garten of I.P.C. from Iraq; (seated) I. P. Uitentuis of Shell from Borneo; Reza Almaee of General Petroleum from Iran; Pedro de Garay of J. E. Douglas from Mexico; William T. Powell, President of Emsco Mfg. Company, speaker of the evening; Joe Turner of Aramco from Saudi Arabia; Sid Broom of I.P.C. from Arabia.

EXCEPTIONALLY HIGH RESISTANCE TO

- FLUID CUTTING
- WEAR
- CORROSION
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- BALL-ON-SEAT SHOCK

That's what you get with KENNAMETAL* Balls and Seats

You can reduce sub-surface pump failures and costly pump pulling jobs due to worn out balls and seats by installing Kennametal Balls and Seats. Kennametal gives you from 3 to 5 times longer service than special or super alloys and 20 times the service of steel balls and seats.

Get Performance Like This

- Kennametal wear parts in an Otis bottom hole regulator provided 12,000,000 closures under 1200 psi in sand-laden fluid.
- After over 2 years of service, Kennametal Balls and Seats are still operating in a Houston field, where the corrosive and abrasive conditions forced pump surfacing 3 times in 4 months to replace alloy balls and seats.
- In a Ventura Avenue well, strongly corrosive cuts destroyed the effectiveness of the best alloy steel balls and seats in three weeks' service. Kennametal Balls and Seats were installed over a year and a half ago. Already they have outlasted the best alloy steels by 26 to 1, and they're still on the job.

If you have a problem well, or just want longer life, less pump downtime, ask your pump service man to install Kennametal API Balls and Seats. They will cost you less in the long run. KENNAMETAL INC., Latrobe, Pennsylvania.

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Longer pump life, less downtime, lower pump cost

Rocky Mountain NEWS

Colorado—Idaho—Montana—New Mexico—Utah—Wyoming—Western Canada

New Drilling Record

On the basis of wells completed, the Rocky Mountain region in 1955 had its best year in the history of the oil industry.

Completions during the year, as reported by Petroleum Information in a preliminary summary, totaled 4,752 wells, which topped any previous year by 549. Colorado, Montana, Western Nebraska, and Utah all set new drilling records. Wyoming operations were down, due to curtailment of drilling in the Clareton field, but this was offset for the region by increased activity in Western Nebraska.

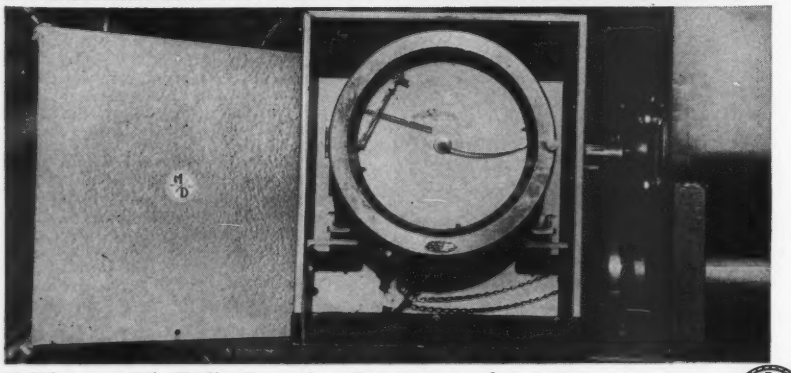
Wyoming

Stanolind Oil and Gas Co. has drilled a successful stepout from the Torchlight field in Big Horn County, recovering a flow of 144 barrels of oil and 100,000 cubic feet of gas per day from the No. 1 Clark, se se sw 14-51n-93w. The test was at the interval 3148-84 feet in the Phosphoria. The well is one and three quarters miles southeast of the Torchlight field.

In the Byron field of Big Horn County, Ohio Oil Co. has struck new pay zones by finding oil in both the Amsden and Madison. Operator was last reported coring below 6,085 feet at the No. 5 Cozzens, lot 46, 56n-97w. No commercial production had previously been found below the Tensleep in this field.

Mobil Producing has found small production in the Mowry sand at the No. F-21-2 Berry, lot 37, 2-49n-92w, Big Horn County. After being drilled to 6,250 feet total depth, the well was plugged back to 3,802 feet for the test and flowed seven barrels of oil per day. The well, in the Manderson area, is the first to find production from that zone.

Cities Service Oil Co. abandoned the No. 1 Tribal, sw ne sw 9-5n-1e, Fremont County. Operator found shows in the Phosphoria and Tensleep but tests failed to recover more than gas cut water. The well was drilled to 10,905 feet total depth.



Halliburton Oil Well Cementing Company truck equipped with a Martin-Decker M-351 one-system, two-pen recorder. The truck is a continuous sand proportioner used in hydraulic fracturing operations.

The greatest names in oilwell service depend on the greatest name in oilwell instrumentation.

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HOME OF THE WEIGHT INDICATOR — LONG BEACH, CALIFORNIA

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PETROLEUM CHEMICALS DIVISION

NEWS

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January ★ *One of a Series of Interest to the Petroleum Industry* ★ *1956*

QUESTION BOX

1. WHAT is the *"typical"* American service station operator's reaction to price wars?
   (see article at right)
2. WHERE can you look for new program ideas for your next dealer meeting?
   (see below)
3. WHOM can you contact for technical service in the Gulf Coast Region?
   (see next page)
4. HOW can you prevent *gel-clogged* heating oil lines?
   (see next page)

ANOTHER DU PONT MARKETING SERVICE

Wide selection of program aids available for dealer meetings

During recent years, a wide variety of sales promotion aids have been developed by the Du Pont Petroleum Chemicals Division. These are all designed to be readily adaptable by any oil company for use in its own marketing program. And they make ideal program material for dealer meetings.

A new movie, "When the customer says 'KNOCK,'" is one example of the material available. This explains the common causes of knock other than gasoline quality and helps your dealers answer customer complaints in a salesmanlike way. You can follow up this film with a series of cartoon booklets that will help the dealers remember its message.

Another unique film presentation showing dealers how they can easily *sell themselves* is narrated by an animated cash register. And there are flannelboard presentations on gasoline and lubricating oil quality. Chassis dynamometer and single-cylinder engine demonstrations are also included. For special programs, you can even arrange to use the Du Pont fleet of fuel test cars.

For more information on these and other dealer meeting aids, just get in touch with any of our sales offices. Ask for a copy of "Sales Promotional Aids for Dealer Meetings."

WHO is your "typical" dealer... and HOW does he operate?

Many important facts about the man and his business are revealed in Report No. 4 of Du Pont's continuing market survey, "The Service Station Operator"

Thousands of customers form, confirm, or change their opinions of your company every day . . . based on the impressions made by your service station operators. Because of this, a composite, cross-section picture of the average dealer can be valuable to you in formulating dealer policies and sales promotion plans.

"The Service Station Operator" is a new Du Pont survey designed to give you a clear, concise picture of the average American dealer . . . his employees, his business, his opinions, his background, his relation to his petroleum products supplier, and his motivations. Three reports on this survey have already been published and made available to marketers by the Du Pont Petroleum Chemicals Division.

They cover (1) such dealer retail functions as station hours, gallonage, credit and mailing lists; (2) dealer knowledge of products, additives, sales assets, and prices; and (3) opinions on dealer meetings, advertising, dealer publications, and sales aids.

Report No. 4

The fourth report in the series, which has just recently come off the press, discusses the dealer's relationship with employees, his income and reactions to price wars, and his interests in dealer association activities.

The statistics included in the report are graphically illustrated with charts and are enlivened by cartoon drawings. This format makes the important points easy to reach, remember, and refer to.

What happens when . . .

For example, how does the average dealer react to a price war in his own marketing area? That is one of the factors influencing your business which is covered in Report No. 4.

Most of the dealers who have experienced price wars, the survey found, encountered them within the past year. What did they do? . . . The biggest percentage of them met the competition by cutting their own prices. A number of them, however, decided to hold out and refused to cut their prices. Other interesting reactions are also tabulated in this survey report.

ADVERTISEMENT—Prepared for the Petroleum Chemicals Division of E. I. du Pont de Nemours & Company (Inc.)

OVER

DU PONT

PETROLEUM CHEMICALS DIVISION
NEWS

DU PONT

CONTINUED *"Dealer Survey"*

What's next?

A fifth report on "The Service Station Operator" survey is due to be published soon. This will be the most significant of the whole series of reports. It will discuss the interrelationships of all the factors covered in previous reports . . . such as how dealer meetings, station hours, price wars, and other variables affect sales volume.

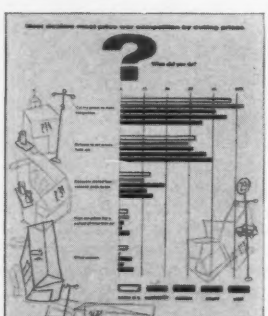
As part of the continuing market research work of the Du Pont Petroleum Chemicals Division, this dealer survey is the natural follow-up of an earlier survey on the buying habits of consumers at service stations. The interviews were conducted on a completely impartial basis by National Analysts, Inc.

Specialized cross-tabulations

Based on personal interviews with 2,633 service station operators – selected by the scientifically accurate area-sampling method – the survey is representative of all the operators in the United States. But the results can be broken down and cross-tabulated to give a true sample of any of four geographical areas.

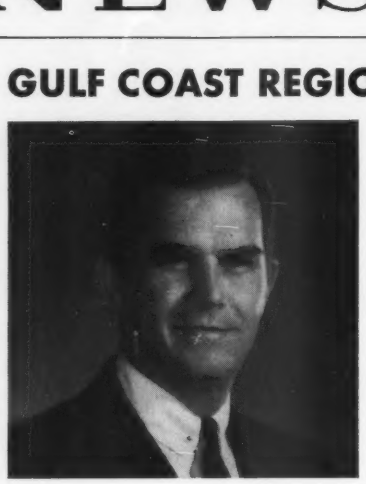
And in addition to the regular distribution of reports to marketing executives, the entire survey has been tabulated on IBM cards, which will give a wide variety of specialized breakdowns to meet the individual needs of various oil companies.

For more information about this survey, just get in touch with any of our sales offices listed below.



HERE IS a typical page from Report No. 4 on "The Service Station Operator."

GULF COAST REGIONAL LAB MANAGER



John N. C. Cameron, manager of the Du Pont Petroleum Chemicals Division's regional laboratory in Houston, Texas, is in charge of customer service, product testing and additives treating recommendations for Du Pont customers in the Gulf Coast Region.

Before joining the Du Pont Company in 1949, Mr. Cameron was with the Research and Development Division of Humble Oil and Refining Company at Baytown, Texas. During his seven years with this company he worked as a research chemist on octane rating and light oil analytical research. He also did pilot scale research on catalytic treating. Prior to his assignment at Humble, he was employed for three years by the Gravity Meter Exploration Company in Houston.

After starting his college career at the University of Texas, he transferred to the University of Houston, where he received his B.S. degree in chemistry.

Mr. Cameron is a member of the American Chemical Society.

Gel-Clogged Heating Fuel Line!

. . . you can avoid this complaint

A rash of clogged fuel line complaints can quickly jockey you into some rather embarrassing situations. On the other hand, you can easily avoid this kind of trouble before it starts.

If the fuel oil is at fault, the clogging generally occurs in the line leading from the fuel oil storage tank to the burner, or at the screen ahead of the fuel pump. This clogging is generally due to the formation of a *gelatinous* material. And copper or brass are the culprits.

Since the feed-in line and the screen are often made of copper alloys, these are a potential source of copper mercaptides. If formed in sufficient quantities, the mercaptides become gelatinous in nature. So to prevent the clogging you must protect your fuel against the harmful effects of copper.

Here's how . . .

You can help assure adequate protection with DMD (Du Pont Metal Deactivator). It is highly effective in most fuel oil stocks in low concentrations (about 2 pounds per 1000 barrels).

This means that you can, in most cases, insure yourself against the harmful effects of copper–and promote better customer relations, too–at a cost of *less than ½ cent per barrel.*

For best results, it is recommended that you use DMD in combination with Du Pont Fuel Oil Additive No. 2 which guards against sludge.

THIS BOOKLET describes the properties, uses, and methods of addition of DMD. If you do not have a copy, any of our sales offices listed below will be glad to send you one.

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ADVERTISEMENT—Prepared for the Petroleum Chemicals Division of E. I. du Pont de Nemours & Company (Inc.)

Printed in U. S. A.

Carter Oil Co. will test the Mesa Verde with a 6,500 foot test in Campbell County. Operator has staked location for the No. 1 Govt.-U.S.A., se nw ne 11-51n-75w, in the Barber Creek area.

Continental Oil Co. is drilling a 4,000 foot Shannon test south of Meadow Creek field production in Johnson County. The new test is the No. 1 Govt.-Weadick, nw nw ne 21-41n-78w.

In the Red Creek area of Fremont County, Shell Oil Co. will drill the No. 1 Shoshone-Arapahoe, se sw nw 11-6n-4w, for a test of the Ordovician. It is scheduled for 3,000 feet.

Phillips Petroleum's No. 1 Boysen in Fremont County has been drilled to 13,701 feet, at which time work was halted to move in a larger rig. Original objective of the well was the Mesa Verde at 12,500 feet, but the new objective has not been announced. The test is in n½ se sw 27-5n-5e.

Colorado

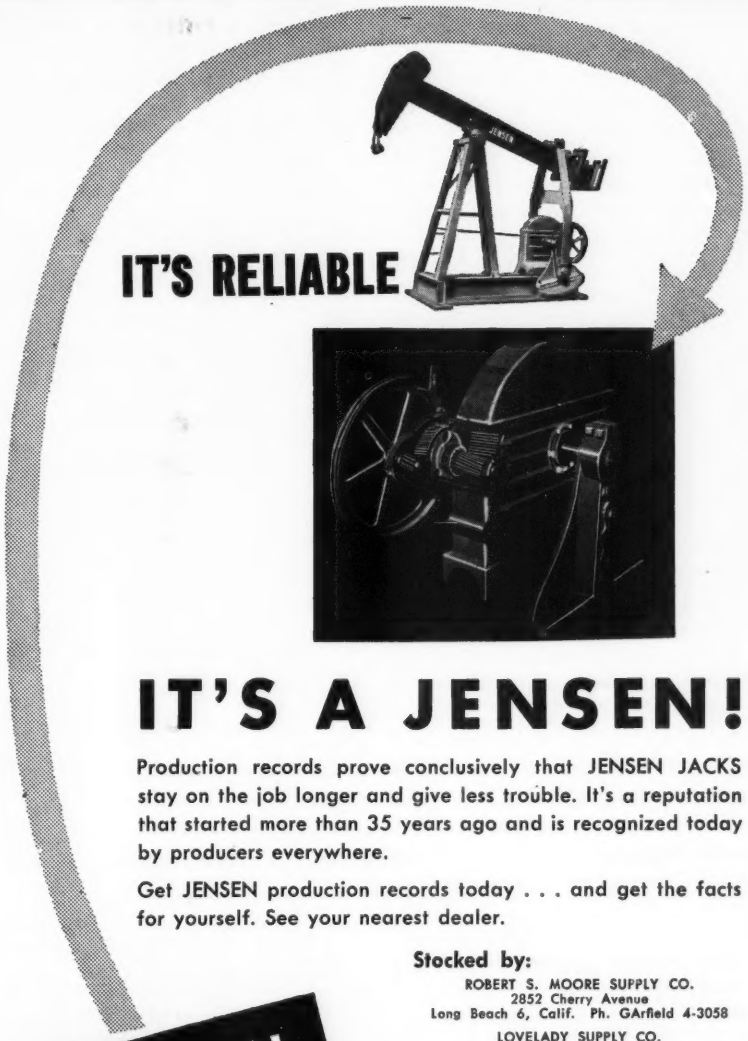
Skelly Oil Co. has found commercial gas production in the J sand at the Cedar Creek field of Logan County, having recovered gas at the rate of 6,000,000 cubic feet per day at the No. 2 Montague, nw se sw 12-9n-54w. The recovery was at 5,070-82 feet. In a drill stem test of the D sand this operator recovered 700,000 cubic feet of gas per day and 540 feet of oil. The field has been established for oil production from both sands but there has not previously been commercial gas production from the J.

In the first deep test of the Kejr field, Sohio Petroleum was coring the Lyons sand around 6,150 feet at the No. 5 C Kejr, c ne ne 11-2s-56w, Washington County.

A mile south of the East Akron field in Washington County, Maxey Drilling Co. has completed a D sand producer, the No. 1 Spotts, c nw ne 1-2n-52w, for 70 barrels of oil per day on pump.

Sohio Petroleum was drilling below 5,570 feet at the No. 1 Danford, c sw sw 9-1s-57w, Adams County. Operator found oil showings in samples at 5,513-71 feet.

British-American Oil Producing Corp. is seeking to have the Denver District Court set aside an order of the Colorado Oil and Gas Conservation Commission which limits production in the Cliff field in Logan County. The company claims the commission exceeded its authority by the order, which restricts production to 200 barrels of oil per day per well.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Utah

Shell Oil Co. will drill a second well in the North Boundary Butte area of San Juan County. The new test will be a mile north of the discovery, the No. 1 North Boundary Butte, c se ne 33-42s-22e, which was completed for 375 barrels of oil and 2,670,000 cubic feet of gas per day. It will be located in ne se nw 28-42s-22e.

Carter Oil Co. abandoned its wildcat in the Hill Creek area of Uintah County after drilling to 12,897 feet total depth. The test was in 32-14s-20e.

In its Coalbed Canyon wildcat in San Juan County, Gulf Oil Corp. was drilling around 8,185 feet.

Carter Oil recovered 1,400,000 cubic feet of gas per day from the Uintah formation at its No. 1 Richtmann Federal, ne sw se 5-7s-23e.

Nebraska

Brinkerhoff Drilling Co. swabbed 20 barrels of oil per hour from the D sand at the No. 1 Richards, c ne ne 28-17n-43w, Garden County. At last report, the operator was setting tanks and installing pump. The well is the first producer in the county and is 20 miles northeast of the Franzen field.

Finding no shows in either the D or J sand, Maxey Drilling abandoned the No. 1 Folkerts-Block, nw nw sw 29-16n-47w, in Cheyenne County, after drilling to 4,514 feet total depth. Another Cheyenne County wildcat, the No. 1 Balickek, sw sw se 18-16n-50w, was abandoned by Bryan W. Payne and New Drilling at a total depth of 5,054 feet.

Ohio Oil recovered 20 feet of oil on a drill stem test of the J sand at the No. 1 Lane, c nw se, 17-17n-49w, in Morrill County.

In another Morrill County test, Anschutz Drilling abandoned its wildcat in 17-21n-50w after drilling to 4,311 feet total depth. Still another abandonment was Banner Oil's wildcat in 18-17n-50w, at total depth of 5,070 feet.

North Dakota

Strat tests for evaluation of acreage in Towner County are being drilled by Stanolind Oil and Gas. Stanolind has approximately 15,000 acres under lease in the area, which is generally described as 161, 162n-65w. Exact location of the tests has not been announced.

Sohio Petroleum was coring below 4,505 feet at its third test in the Bluell field of Renville County. The well is the No. 2 Ritter A, nw ne 23-163n-86w.

Phillips Petroleum and R. M. Ballard have found shows in the Charles and the Mission Canyon at the No. 1 Braathen, ne nw 29-162n-95w, Divide County. This wildcat is 20 miles north of established production in the Tioga field.

Farmers Union Central Exchange recovered oil cut mud in a drill stem test of the No. 1 Stenehjem, se se 15-161n-82w, in Bottineau County. The test was at the interval 4,152-68 feet in the Mission Canyon. Final objective is the Lodgepole, expected at 4,350 feet.

Montana

Tide Water Associated Oil was continuing tests of the No. 1 Govt. A, c ne sw 8-34n-21e, in the Cherry Ridge area of Blaine County. In a test of the Sawtooth, the operator recovered 10 feet of oil and 50 feet of oil cut mud.

Pure Oil Co. abandoned its No. 1 Govt., c ne se 8-9s-50e, in the Bay Horse area of Powder River County. The well was drilled to 4,162 feet total depth, with no shows.

In the Heart Butte area of Pondera County, Union Oil abandoned the No. 1 Mittens, c ne nw 12-29n-11w, after drilling to 7,688 feet total depth. Original objective of the test was the Madison, expected at 8,500 feet, but caving caused suspension of work.

Amerada Petroleum abandoned the No. 1 Gunderson, c nw ne 10-10n-27e, in Musselshell County. The test was carried to 4,223 feet total depth. This marks Amerada's sixth failure in the area.

In Carter County, Ohio Oil was coring below 9,180 feet in the lower Ordovician at the No. 1 Govt., c lot 6, 4-1s-62e. Operator recovered 4,300 feet of oil in a test of the Red River at the interval 8,602-20 feet.

Stanolind Oil and Gas Co. abandoned its strat test at the No. 1 NP N, c sw ne 27-5n-50e, in Rosebud County, at 1,835 feet. Water was recovered from the Judith River formation. This was the ninth strat test run by Stanolind in the area.

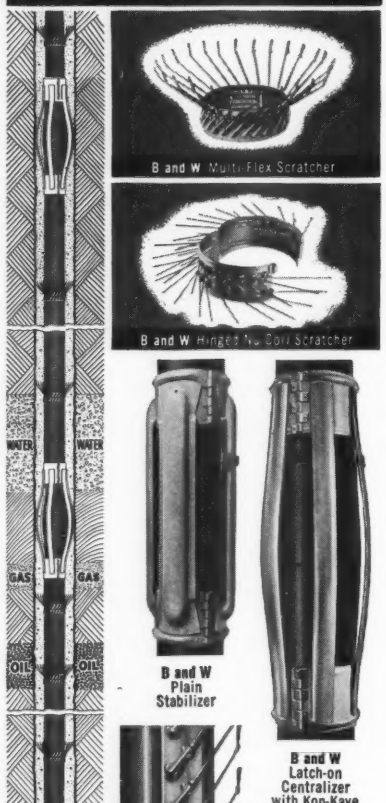
Western Canada

Oilwell operators and C and E have found oil and gas in the Mississippian at their No. 1-7 Harmatton, 1sd 1,7-32-4w5, in Alberta. Two drill stem tests of the area recovered oil and gas.

British-American Oil Co. Ltd. and Hudson's Bay Oil and Gas Co. Ltd. recovered light gravity oil at the rate of 16 barrels per hour at the No. 7-26 South Maple, wildcat in the Maple area of southwestern Manitoba.

In Southern Saskatchewan, McCarty and Coleman were preparing to complete the No. 8-31-Lemieux, 8-31-5-33wl, in the Mission Canyon. Gas at the rate of 2,500,000 cubic feet per day was recovered on test of the interval 3,682-3,706 feet. Oil was recovered at the rate of 40 to 50 barrels per hour, and in another test at 3,716-46 feet the oil recovery was more than 60 barrels per hour.

B and W
SCRATCHERS AND CENTRALIZERS



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5404

District Meeting Announced By P.E.S.A.

Wendell M. Jones, Chairman of the Pacific District, Petroleum Equipment Suppliers Association, has announced a Pacific District membership meeting (stag) to be held Thursday February 16, 1956 at the Ambassador Hotel, Los Angeles.

The meeting will begin at 4:00 P.M. with a business session and will be followed by a reception and dinner. A feature of the afternoon business session will be an address by a prominent oil company executive.

Mr. M. E. Montrose and Mr. Rainey Elliott, National President and Vice President have also indicated their intention of being present and will give short talks.

Mr. Jones wishes to stress the point that representatives of member firms whose membership is in other districts are not only welcome but urged to attend.

Reservations for the meeting may be made through Walter Pusch, 639 South Spring Street. Telephone MIchigan 4327.

Pipe Shortage Offers Problem

What the future may hold is another question, but, based on a recent survey of both large and small operating organizations, the tight supply of tubular goods apparently has not yet reached the critical stage in California.

Nevertheless, there does exist a shortage of steel in California and throughout the country as well. Normal drilling operations in this state so far have not been interrupted and it is evident that if orders for necessary tubular goods are placed far enough ahead drilling programs will not be threatened by curtailment.

Any scarcity of steel anywhere is definitely because demand has gone beyond capacity of mills, which recognizing the danger poised by the situation are stepping up their expansion programs.

Steel, of course, is a vital commodity to the petroleum industry. The automotive industry is in the same category with its tremendous tonnage demand this year even greater than ever before.

Railroads, which during the Korean War and in the years following were not in the position to advance improvements and modernization of their extensive holdings, currently have priority as regards steel and are buying cars, engines and rails to place in rapid time all branches of the transportation business in the best condition possible.

Steel shortages have threatened the country in the past. However, in earlier years it was possible to call upon Japan, Belgium and other foreign nations for purchases of steel.

Nothing is so permanent as change and nations in other parts of the world now find that their economy can use all the steel they can produce and more.

Concerning another facet of the steel situation, it probably would surprise no one if prices for this metal were not boosted before many more months go by.

Companies here and there in the state may find at times that they cannot buy all the casing or special items they want, but these problems usually are answered by the spirit of cooperation which has always prevailed in the oil fraternity.

Standard Fetes Pipeline Employees

Standard of California feted 26 employees of its pipeline department at a dinner held at Weit's Cafe in Wasco. The honored guests, who had received service pins during 1955, were C. W. McKee and W. A. Malm, 40-year pins; Paul Adams, R. L. Sowell, R. W. Fraysier, Emmons Jones, W. W. Davidson and C. R. Sowden, 35-year pins; C. Schaef, Tom Rose, R G. Carlson and G. W. Reynolds, 30-year pins and gold watches; P. L. McCracken, L. M. Morris, C. W. Jones, R. H. Johnson, M. L. Norman, G. P. Carter, L. D. Rich, J. E. Newton, J. P. Plucinsky, J. T. Berry, D. F. Bridges, E. J. McElmurry, W. E. Heyart and A. I. Perez, 10-year pins. Also in attendance was R. K. Paine of San Francisco, pipeline department manager; E. J. Hyde, company central district general superintendent and C. L. Reasoner, superintendent.

Union Building Pipe Line

Bids are being asked for construction of Union Oil's new $668,000 Phoenix, Arizona pipeline terminal and accompanying facilities, it was announced recently.

Scheduled for completion early in 1956, the project will make possible direct receipt of gasolines and diesel fuel from the company's Los Angeles refinery via the Southern Pacific Company pipeline which connects with Union's own pipeline system at Watson, California. These products at present are moved to Phoenix by tank truck and rail shipment.

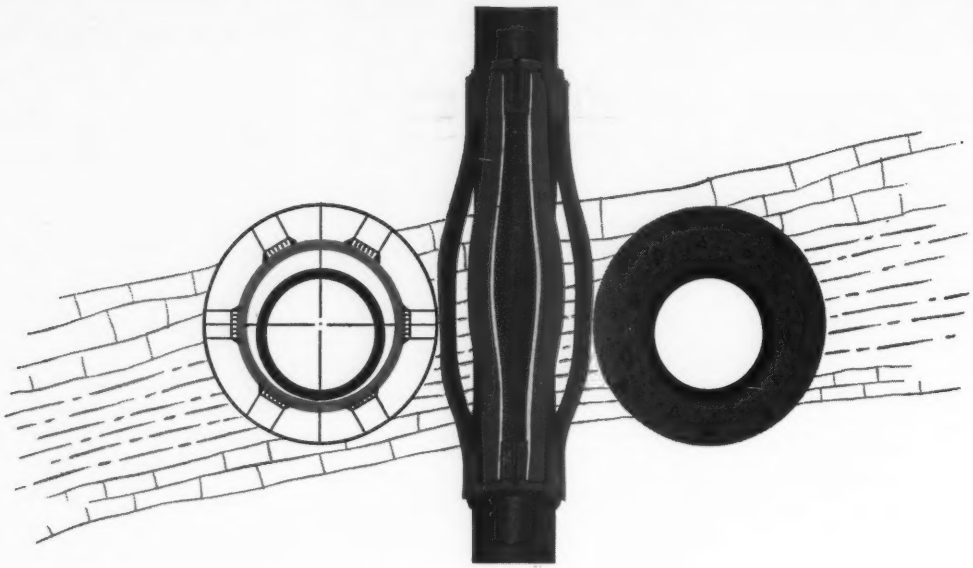
Storage capacity of 67,000 barrels will be provided at the 12-acre terminal site just outside Phoenix in Maricopa County, where the products will be taken from the Southern Pacific pipeline. A 5½ mile, four-inch pipeline will be installed from this terminal to Union's marketing station on North 19th Avenue in Phoenix, where two 5,000 barrel capacity floating roof tanks and other equipment are to be added.

Movement of products from pipeline terminal into Phoenix will be remote controlled over telephone company circuits from the marketing station.

Design and engineering is by Ehrhardt & Associates, Los Angeles, in conjunction with Union Oil's construction department.

Southern Pacific Pipeline Working

Southern Pacific Company, which expended $117,000,000 for capital improvements in 1955, announces that its new subsidiary, Southern Pacific Lines Inc., has begun transporting refined petroleum products as a common carrier. The pipeline system along with pumping stations and terminal facilities represent a total investment of approximately $34,000,000. Primary capacity is 52,600 barrels a days of mainly aviation premium and regular gasoline, jet and diesel fuels. The principal pipe lines extend westerly from El Paso, Texas, refineries and easterly from Los Angeles refining areas to consuming districts around Phoenix and Tucson, Arizona, and some intermediate points.



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S-3 CASING CENTRALIZERS

Because the S-3 Centralizer has heavier, load-tested springs *and because* the S-3 Centralizer has an exclusive design that prevents springs from touching casing, you can be sure of more uniform cementing and maximum casing protection every time! Even in key seats, tight hole and other critical areas, all casing is fully protected and held away from the wall until a stronger, long-lasting cement job can be completed.

The rugged strength of the S-3 Centralizer has been proved in thousands of field tests where loss of bowed-height in each spring after permanent set was as low as 3.94%—considerably less than in ordinary centralizers. And with the springs transmitting the centering load to the end bands, the stronger springs never touch casing nor permit casing to be damaged by sidewall. Torque is reduced, ample annular clearance is obtained and sidewall is undamaged with the exclusive features of Halliburton's S-3 Centralizer.

Other S-3 advantages—freer circulation in annulus, faster installation and hinge type design—allow you to get the most in centering and protective force with more economy. For full information on the S-3, get your free copy of the Halliburton Centralizer bulletin with complete spacing charts for all casing sizes and hole deviation conditions. It's a valuable guide to successful, first-time cementing with the dependable S-3 Casing Centralizer. Call your local or district office of the Halliburton Oil Well Cementing Company.

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211 SERVICE CENTERS — JUST MINUTES AWAY FROM ANY RIG

Major Building Expansion At Halliburton

Two major building expansions are being undertaken by Halliburton Oil Well Cementing Co. at its Duncan headquarters. Logan D. Campbell, vice chairman of the company, and L. B. Meaders, president, announce the start of construction on a four-story addition for Halliburton's main office building at Plant One.

The other major expansion is a new wing at the company's main Technical Center building, adjoining Halliburton Plant Two. Preliminary excavation work is already in progress on this.

Both projects, to be completed within eight months, are part of Halliburton current expansion program. Exact cost of the projects was not given.

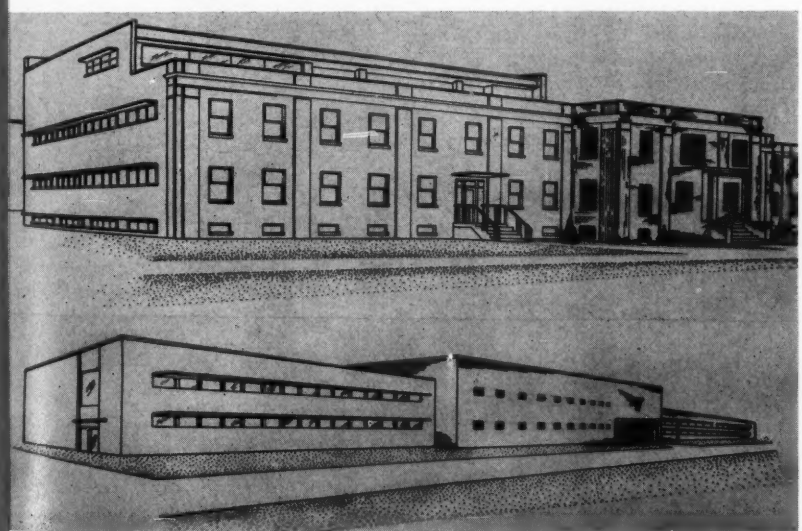
The main office addition will increase by 28,000 square feet the building's present 45,000 square feet. The Technical Center addition will add 19,020 feet to the present 32,250 foot area. Each addition will conform to the architectural style of the structures being built onto.

The main office addition will have four stories, one more than the present structure. The new north wing at the Technical Center will be similar in appearance to the present south half housing Halliburton's Chemical department.

A 200-seat auditorium comprising part of the two top stories, dining-conference room and a large elevator are features of the main office addition. Unlike the present main building at the Technical Center, the new wing will have a basement.

"These projects mean we can enlarge our technical staff and rearrange office facilities at the office building," the Halliburton officials pointed out. "The continual expansion of our business dictated the need for both projects. The additional business requires more office space.

"It's the same story at the Tehnical Center. We need more engineers, chemists and other technical people. Now we will have room for them." The Tehnical Center now has over 200 staff members. Halliburton employs approximately 2,200 persons at its Duncan operations.



Top—New addition (left) at Halliburton's main office building. Adding 28,000 square feet to the present building it has the same reinforced concrete-brick exterior construction.

Bottom—New wing (left) at Halliburton's Technical Center. When finished it will increase the structure's working area by more than half the present area.

New Catalog by B. S. & B.

Black, Sivalls & Bryson, Inc. announces the publication of two new catalogs on oilfield equipment—Catalog 31-05 on the Model J Vertical Treater and Catalog 31-06 on the Model JCW Vertical Treater for cold weather operation.

The Model J. Treater design is balanced to handle large volumes of oil, water and gas on tough treating jobs. It contains all the high performance and easy operating features known to the modern treating industry.

The Model JCW Treater is specifically designed for cold weather operation. Controls, piping and accessories are built to give maximum service under the most severe climatic conditions.

Both catalogs are fully illustrated with line drawings, including a four-color flow diagram on how the treater works.

For your free copy of either Catalog 31-05 or 31-06, write to Black, Sivalls & Bryson, Inc., Product Information Department, 7500 E. Twelfth Street, Kansas City 26, Mo.

M. E. Gray Co. Start New Construction

The M. E. Gray Company has signed a contract with the John A. Alexander Company to build a warehouse and office building on approximately three and one-half acres, located at 5960 East Shull Street near Garfield in Bell Gardens, California.

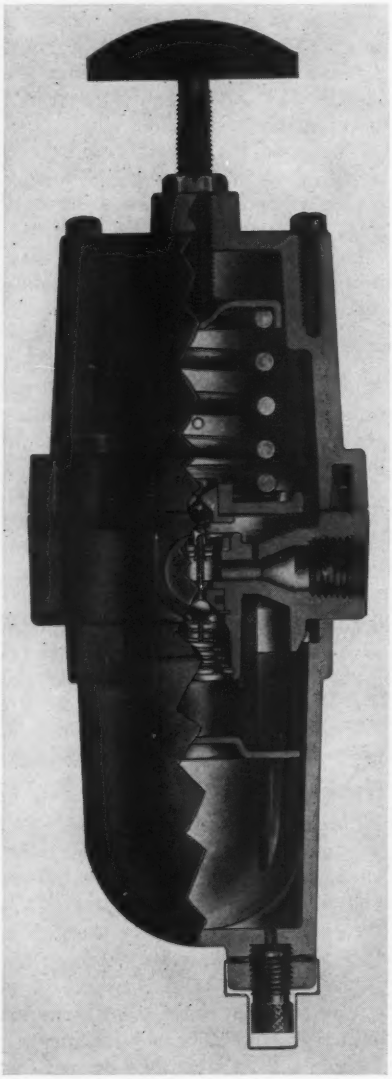
Construction began shortly before January 1, 1956. The new facilities will include a thirty thousand square foot warehouse with adjoining office space, pipe yard, fencing and paving.

The Board of Directors of the M.

E. Gray Company have elected Howard E. Chapman, Executive Vice President; Robert B. Trimble, Vice President in Charge of Sales and W. F. Hill as Merchandise Manager.

B.S.&B. Introduces New Regulator

Black, Sivalls & Bryson, Inc. introduces a new Instrument Air Regulator, Type 73-26, that provides the close regulation demanded for instrument air supply in pneumatic instrumentation and in other installations requiring extreme sensitivity of pressure output in small volumes of air or other gas.



The new 73-26 features higher air volumes, improved corrosion resistance, and a 40 micron phenolic impregnated cellulose filter. It has a minimum pressure drift from set point, gives instantaneous response to changes in flow rate. It provides easy adjustment to within close limits for any pressure within its output range.

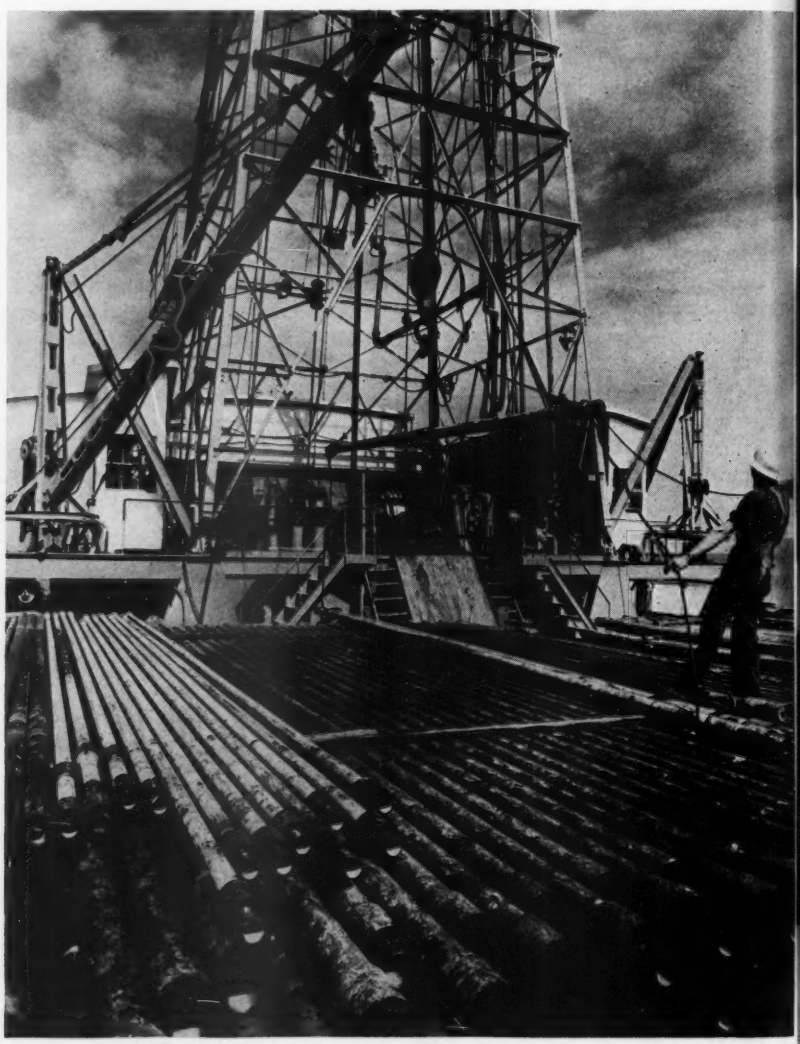
The new regulator can be panel or bracket mounted and serviced without removing from air line. It is available with or without auxiliary pressure gauge.

Connections are 1/4" pipe. Maximum input pressure is 300 psig. Maximum output pressure is 40 psig; 100 psig with special spring. Body is of die case aluminum alloy with stainless and plated steel internals to provide a sturdy but light weight regulator.

For further information, call your nearest BSB controls representative or write to Black, Sivalls & Bryson, Inc., Product Information Department, 7500 E. Twelfth Street, Kansas City 26, Missouri.

Capital Projects Outlay $90,000,000

In order to provide better properties and tools, Union Oil Company during 1955 expended about $90,000,000 on capital projects in all departments of the firm. The spending also provides for company growth in business volume and quality of products.

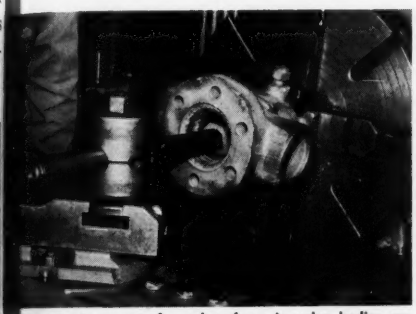


Pipe is everywhere during a major oil well drilling operation, especially at the site of the Richardson & Bass rig which has passed the record depth of 21,482 feet in the marshlands of Louisiana, south of New Orleans. Here, Jones & Laughlin drill pipe is shown being lifted from a stand-by supply to the drilling platform where it soon will be added to the tremendous string already in the hole. J&L drill pipe was used exclusively in the record drilling and without a single failure.

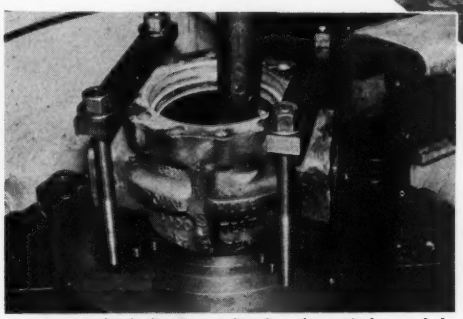
VALVE RECLAMATION in full swing at WILSON OIL TOOL CORP. Ventura, Calif.

Plugs and gates of various valve types are subject to wear and erosion, destroying ability to seat properly and effect a seal. New metal is welded to restore badly eroded surfaces. Usually a hard metal is welded on plugs and gates.

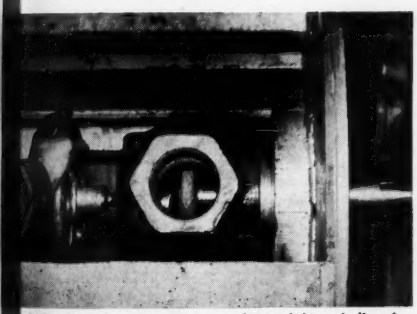
First initiated several months ago, facilities for reclaiming all types of oil field valves have now been completed and production is in full swing at Wilson Oil Tool Corp. in Ventura. Here, the valves are disassembled and rebuilt according to requirements, restoring original fits on all seating surfaces. Equal-to-new performance is obtained from the reclaimed valves with cost savings as much as 40% over new replacements. Important steps in the reclamation process are illustrated.



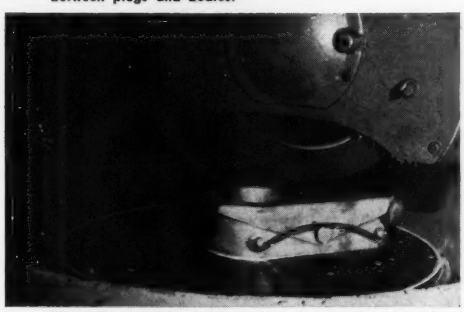
fter cut-outs or out-of-round surfaces in valve bodies are stored by welding, excess metal is removed until tapered ore is within a few thousandths of size.



Large valve bodies are machined on the vertical turret lathe after welding is completed. A softer weld metal is used on valve bodies, which reduces friction and prevents galling between plugs and bodies.



igh finish and exact taper are obtained by grinding internally. This set-up shows valve body being mounted in grinder enclosure which is flooded with coolant during finishing. Resulting surface is mirror bright.



Flat surfaces, such as these gates, are ground to exceedingly smooth finish. By gripping with a magnetic chuck and alternately surfacing each side, parallelism of the two surfaces is exact and positive.

here no cut-outs have occurred and only normal wear exists, plugs are restored to size by metal spraying, overcoming out-of-roundness and imperfect tapers. Angle of aper and finish are produced on the cylindrical grinder.

When machining is finished, mating surfaces are hand-lapped to perfection. Valves are then reassembled. Any part which cannot be safely rebuilt is replaced with a new duplicate.

eady for the final test, the completely rebuilt valve is ubmitted to prescribed hydraulic pressures up to 15,000 si. This test eliminates possibility of leaks on the job.

No matter how battered they look when they arrive, the reclaimed valves go back on the job not only in brand new condition, but clean and sparkling in a new coat of silver paint.

PIONEERS

The "Kentucky rifle" – longer, lighter, more accurate than the preceding musket – opened the land beyond the Appalachians, in the hands of scouts, woodsmen and mountain men. The Winchester 73 repeating rifle gained immortality as "the gun that won the west." And the Colt "Frontier," also known as the "Peacemaker," the favorite sidearm of outlaw and lawman alike, has been called "the gun that tamed the west."

Though the pieces above are now past history, pioneer days have never ended. We have felt them always with us, here at *H. C. Smith Oil Tool Co.* And our work bears witness to it. Within our 20 years of company life we have helped to pioneer in the development of jet action bits...the first long-tooth bit was ours...the first hole-opener with the reamers above the bit...the first cross-section bit with forged cutter brace and one-piece pin for the strongest construction known.

While we take a natural pride in these developments, we mention them here simply as examples of the design, engineering and construction that have led many operators to agree that "For fast, straight, full-gage hole, You can't beat *H. C. Smith Bits!*"

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Field Development

Kings County Test Starting

The next wildcat test to get going in Kings County will be the Donald Frankel, Operator, Macedo & Pinheiro No. 72-24 on Section 24-18s-20e in the Armona area. In the McLure Valley area, Caminol Company's Avenal No. 1 wildcat on Section 18-24s-18e failed of its purpose to 1746 feet and went into discard. At Kettleman Hills Middle Dome, Middle Dome Corporation appears to be having some pumping trouble with its No. 38-19V test on Section 19-23s-19e. Drilled to a total depth of 13,076 feet and plugged back to 12,250 feet, the well at last reports was pumping 12 barrels of 36.8 gravity oil a day.

Fruitvale Field Well On Production

Campbell, Shell & Collins' Stockdale No. 9-35 well on Section 35-29s-27e in the Fruitvale field is in from 4167 feet for an initial output of 33 barrels of 16.2 gravity oil a day, cutting 15 per cent. McNee Oil Drilling Company did the work.

Semitropic Wildcat Dry

Having drilled to a total depth of 8500 feet without visible encouragement, D. D. and Dorothy Dunlap have given up their No. 45-26 wildcat venture on Section 36-26s-22e in Kern County's Semitropic sector.

Midway-Sunset Test In Motion

Standard Oil of California has launched its interesting Hallmark No. 318, a deeper pool test on Section 25-12n-24w in the Midway-Sunset area, Kern County. The drill site is several feet northeast of the location of Lake View Oil Company's sensational gusher which blew in and from March 15, 1910, to September 9, 1911, flowed more than 8,000,000 barrels of crude oil from the Lakeview sand. It was bottomed at the shallow depth of 2228 feet. About two years ago, Union Oil Company, majority stockholder in the 98-acre Lakeview lease, gave up the property, which is credited of producing some 15,000,000 barrels of crude oil before it flattened out.

Kern River Wells Opened

Some half-thousand wells in the Kern River field, shut-in two years ago by Tide Water Associated Oil Company because of the heavy fuel situation, are back on production. The healthy supply and demand picture prompted reopening of the wells, which has increased the company's San Joaquin Valley production by no less than 3300 barrels a day. In the same field, McMullan Oil Company's No. 5 well on Section 18-28s-28e has been completed on the pump at 1115 feet.

Beer Nose Wildcat Quits

In the Beer Nose sector near Blackwells Corner, Patrick A. Doheny has abandoned Crosby Beer No. 1 wildcat on Section 21-26s-19e at a redrilled depth of 5841 feet. Original bottom was 5876 feet.

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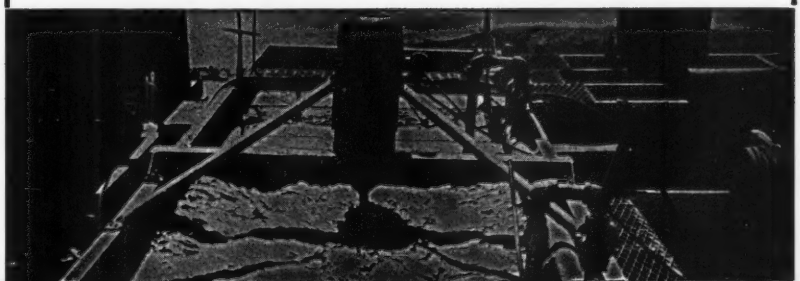

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Beach Well Drill Stops

Signal Oil & Gas Company's State No. 1551 on Section 14-6s-11w at Huntington Beach has been suspended at a total depth of 7221 feet. Signal currently has three other wells going in the field, and Southwest Exploration Company, two.

Placerita Well Pumps

Pumping an estimated 10 barrels of 12.5 gravity oil a day, cutting initially about 50 per cent, the J. Karl Zimmerman et al No. 5 well on Section 31-4n-15w at Placerita has been given the final touches.

West Newport Wells Working

Monterey Oil Company is redrilling at 6960 feet with its State No. 1549 wildcat on Section 19-6s-10w at West Newport, which originally was carried to 8711 feet. The company's Newport Beach No. 12 on Section 29-meantime, is being redrilled at 4360 feet. It went first to 6481 feet.

Dominguez Field Increases Output

Union Oil Company continues to add good producing wells in the Dominguez field. Callender No. 136 on Section 29-3s-13w is in from a plugged depth of 7329 feet for a present yield of 361 barrels of 32.3 gravity oil a day through a 24/64-inch bean, along with 458,000 cubic feet of gas. On Section 28, the company is nearing completion depth with Hellman No. 72.

West Coyote Well Completed

Nine barrels of oil a day, cutting 14 per cent, and 35,000 cubic feet of gas daily was rate of production given on Standard's recently completed Murphy-Coyote No. 142 on Section 18-3s-10w in the West Coyote field.

Phelan Test Idle

Swabbing at 6365 feet is the status of Alton Oil & Development Company's Handley No. 1 wildcat test on Section 23-4n-7w in the Phelan area, San Bernardino County. C & C Oil Company's No. 1 wildcat on Section 25-2s-8w in the Chino Hills is at a preliminary stage.

Rancho Club Golf Drilling Studied

It may be that the City of Los Angeles might drill for oil on the municipally owned Rancho Golf Club grounds. This possibility was indicated recently when Councilman Ransom M. Callicott introduced a resolution before the City Council asking the Recreation and Parks Department to delve into the situation in all phases.

Costa Mesa Well Plugged

Standing plugged from 5091 to 4943 feet is Long Beach Oil Operators' Segerstrom No. 1 wildcat on Section 4-6s-10w at Costa Mesa. Drilled to a total depth of 6151 feet, there are indications that the project will be redrilled.

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Butte County Slim Hole Quits

Humble Oil & Refining Company has abandoned its Casa Hamilton Corporation No. 1 core hole No. 1 on Section 33-23n-1w in the Cana area of Butte County. The project was drilled to a total depth of 5088 feet. In Colusa County, Humble has also written off its I. G. Zumwalt No. 1 core hole on Section 23-18n-2w on ground northwest of Princeton. Drilling persisted to a bottom of 4650 feet.

San Ardo Well Good

The latest completion in General Petroleum Corporation's development program in the San Ardo field of Monterey County is Orradre No. 227-2 on Section 2-23s-10e. It was finaled at 1996 feet for 76 barrels of 11.8 gravity oil a day. The Lombardi sand was topped at 1872 feet.

Edna Well Drilling

James W. Sullivan keeps drilling on down with his Byron Petroleum Co. No. 1 well on Section 31-31s-13e in the Edna field, San Luis Obispo County, after setting surface casing at 675 feet. Contractor is Gary Core Drilling Company.

Saticoy Under New Development

Shell Oil Company is busy at an inconclusive stage with its SPS No. 5 well on Section 29-3n-21w in the Saticoy field, Ventura County. SPS No. 4 was completed the other month on the same section for 31 barrels of crude oil a day on the pump from a plugged depth of 8620 feet. Success at this location extended production to the southwest. Shell discovered the field early last year.

Fillmore Well Goes On Tests

On formation test of 12,775 feet and bottom of 12,890 feet, Standard Oil's Sespe Ranch No. 7 at Fillmore in Ventura County showed a recovery of gassy mud with scum and gassy muddy water. The project is going deeper. The drill site is on Section 26-4n-20w. The company's C. W. West No. 2-1 test on Section 21-4n-20w at Fillmore is drilling near 11,500 feet. A fishing job has delayed normal drilling operations with Standard's Kuenstler No. 1 on Section 33-4n-20w, which is down 14,000 feet.

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Oxnard Well On Production

Standard's McInnes No. 6 on Section 6-1n-21w in the Oxnard field is in at a plugged depth of 9651 feet for a daily yield of 158 barrels of 31.2 gravity oil, cutting 1.4 per cent, along with 197,000 cubic feet of gas a day. Thomas P. Pike Drilling Company did the work.

Alameda County Wildcat Drilling

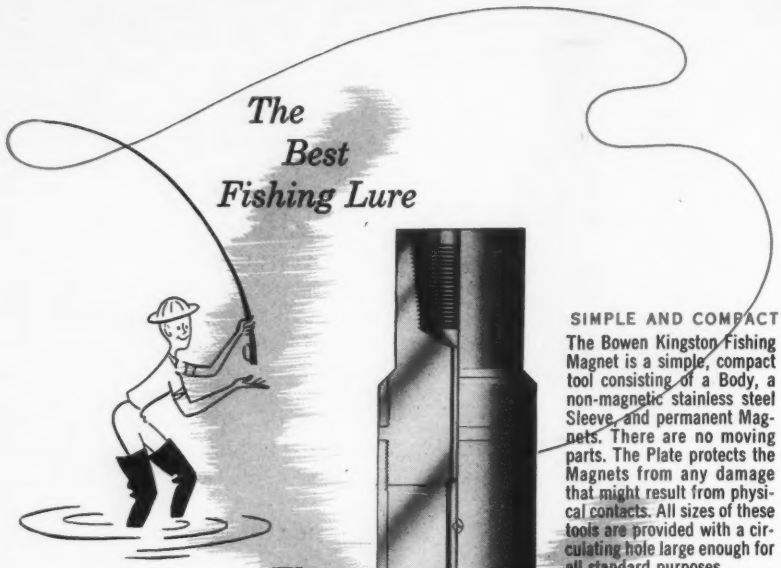
In the Ramon sector and south of Danville in Alameda County, Buttes Gas & Oil Company's Buttes-Fretias No. 1 exploratory well was last reported making hole around 4000 feet. The drill site is on what is known as the Divide Anticline and about three miles west of Buttes-Wiedmann No. 1, which was abandoned some months ago. The present test, on Section 18-2s-1w, is aimed objectively for the Eocene formation at approximately 6000 feet. When the Wiedmann project was given up, field men reported that information assembled on the way down was encouraging and called for additional drilling in the area, although the earlier test failed from a commercial standpoint. The Weidmann well was carried to below 9300 feet.

Montalvo Test Redrilling Now

After going to an original bottom of 12,400 feet, Richfield Oil Corporation at last reports was redrilling close to 10,000 feet with its Richfield-Doheny-Laubacher-Fleischer No. 2 test well on Section 5-1n-22w at Montalvo, Ventura County. Coastal Drilling Company is in charge.

Point Magu Test Drills

On Section 30-1n-21w at Point Magu in Ventura County, Western Gulf Oil Company's Union-Laubacher No. 1 test continues to dig steadily ahead below 6000 feet.



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Bowen Kingston Fishing Magnets are used to retrieve all types of small objects having magnetic attraction such as bit cones, slips, milling cuttings, tong pins, hammers, etc. These odd shaped, undrillable objects gather at the bottom of the hole as a result of tool failures and milling jobs or are accidentally dropped down the hole. Such objects cannot be engaged in any conventional manner and in many instances can be engaged and retrieved only with magnetic attraction.

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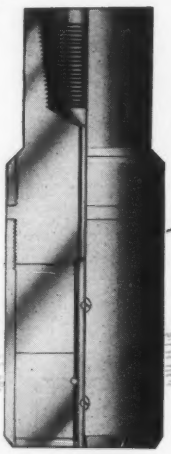

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The magnet elements are made of the most advanced magnetic alloy which is magnetized as an assembly and specially treated to insure axial lines of force at the pole faces. The power of the Bowen Kingston Fishing Magnet is concentrated at its engaging end. This avoids any attraction with the walls of the casing and assures unrestrained lowering into the well.

CAN BE RUN ON WIRE LINE OR PIPE

Wire line operations have the advantages of speed and economy. Pipe operations have the great advantage of circulation, which can be used to eliminate settlings above the fish and to loosen the fish.

LONG LIFE

With proper care, the life of the Magnets can be prolonged indefinitely. Keepers are furnished with each Bowen Kingston Fishing Magnet to prevent magnetic dissipation while the tool is not in use. The magnetic attraction holds the Keeper in place and Cap Screws are provided to jack the Keeper off the Magnet.

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McDonald Project Quits At 2650 Feet

In the McDonald Anticline field in Kern County, Intex Oil Company's Layman No. 7 has been abandoned at 2650 feet, following sidewall sampling and electric log run. Located on Section 18-28s-20e, the well reached the Aqua zone at 1827 feet, Phacoides at 2274 feet and Point of Rocks at 2422 feet.

Bardsdale Test Comes In Flowing

Flowing at the initial daily rate of 270 barrels of 29 gravity oil a day, the Kenneth H. Hunter Jr., Operator, Elkins No. 1-2 test on Section 6-3n-19w in the Bardsdale area of Ventura County has been completed at a total depth of 5301 feet. Stanford & Martin Drilling Company put the well down on contract.

Cymric Field Adds Producer

Honolulu Oil Corporation's new Fitzgerald No. 26-111 well on Section 26-29s-21e in the Cymric field was last reported putting out 65 barrels of 36.3 gravity oil a day, cutting 17 per cent. Drilled to a bottom of 4748 feet, the first Phacoides was topped at 4227 feet, Main Phacoides at 4281 feet, Salt Creek Shale at 4473 feet, Oceanic at 4559 feet, and Kreyenhagen at 4730 feet.

Goleta Point Venture Works

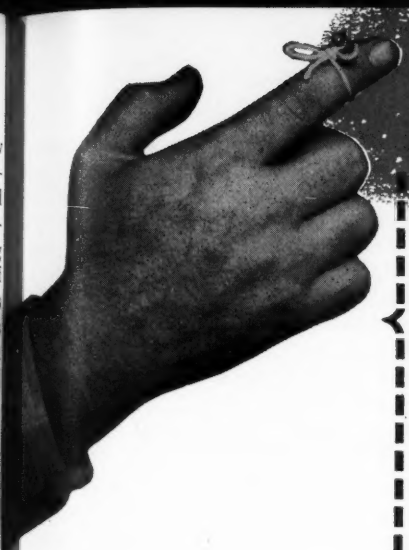
Richfield Oil's Richfield-Honolulu-Signal-State No. 309-5 on Section 30-4n-28w at Goleta Point in Santa Barbara County is redrilling below 4000 foot. The well, the first time drilled, went to 6660 feet and on the first redrill was carried to 2210 feet. The second redrill, now in operation, was initiated at 2060 feet. In the Lompoc area, The Texas Company's Intex-Lagomarsino No. 1 on Section 4-6n-35w has been abandoned at 4696 feet. Over in the Orcutt area, R. F. Oakes & F. W. Combs et al, likewise, has given up Careaga No. 2 test on Section 5-8n-33w at 4365 feet.

Rincon Offshore Core Hole Listed

Richfield Oil is under way with its State 1466 Core Hole No. 2 on Section 13-3n-25w in the Rincon offshore area of Ventura County. State 1466 Core Hole No. 1 was drilled in the area to 2500 feet and then abandoned.

Camulos Ranch Wildcat Staked

Union Oil Company is nearing spudding-in time with its No. 2 wildcat well in the Camulos Ranch area of Ventura County and for which location was staked recently on Section 22-4n-18w. The drill site is one-half mile east of the company's No. 1 wildcat which was abandoned last November at 5158 feet. It is also about two and one-half miles in the same direction from Piru townsite. In the South Tapo area, Union's Simi No. 28 on Section 12-3n-18w has gone off the board at a redrilled depth of 9331 feet. The project was taken originally to 10,993 feet.



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Solano County Project Quits

Solano County's South Maine Prairie sector failed Arcady Oil Company's Liberty Farms No. 2 test on Section 1-5n-2e and the venture, therefore, has been written off as a duster.

Willits Test Drills Ahead

Drilling at last reports was at a relatively shallow depth with the L. H. Scott Company, Inc., Percico No. 1 wildcat on Section 5-18n-13w at Willits in Mendocino County. Torrential rain put a temporary halt to operations when the project was at the 300-foot level.

Mountain View Well Recompleted

Oceanic Oil Company has successfully recompleted the old Symons-Bankline No. 5 well on Section 4-31s-29e in the Mountain View field. The well was gun-perforated in the interval of 5510-5722 feet and came in for 73 barrels of 34 gravity oil daily.

Metson Pool Work Scheduled

Spur Oil Company, which recently leased 400 acres of the Ripley property on Sections 23 and 25-11s-23e in the Metson pool sector of the Midway-Sunset field, is ready to put down a shallow well known as Ripley No. B-5 on Section 23. Target depth is 1200 or 1300 feet. The company also plans to drill in the near future a deep test on Section 25.

Kern County Leases Taken

Union Oil Company's late leasing activities in Kern County include the acquisition of a block of 400 acres from Lester Frick on Section 2-32s-29e and south of Arvin. No great distance from the Rosedale field. Oscar Rudnick has acquired a number of parcels from John Elrich. Among the assignments are the Penner and Renfro leases on Section 23, and the Christopher land on Section 24-29s-26e.

Devils Den Well Inactive

Herbert H. Twisselman's Delay No. 1 wildcat well on Section 22-25s-18e in the Devils Den area is temporarily idle at 580 feet. It is a cable tool job.

Long Beach Well Fishing

Paulin Oil Company as this is jotted down is held up at 8396 feet with a fishing job around 3000 feet in its ICI No. 2 on Section 19-4s-12w in the Long Beach Airport area. East of Long Beach, The Texas Company's Bixby No. 1 on Section 21-4s-12w is likewise held up by mechanical trouble with present depth of the well 10,516 feet.

Torrance Job Drilling Ahead

Del Amo Estates Company's Del Amo No. 109 well on Section 9-4s-14w in the Torrance field keeps drilling ahead at a depth last reported near 3000 feet. Randall Oil Corporation is preparing to drill its Karen No. 1 on Section 24-4s-14w or near the intersection of Sepulveda boulevard and Vermont avenue.

East Talbert Wildcat Tabled

Into history has gone Superior Oil Company's Gisler No. 26-32 wildcat on Section 32-5s-10w in the East Talbert area. Abandonment came about at 7012 feet .

Aliso Canyon Well Pumping

Pumping salt water with a trace of oil marked the final touch with the Porter Sesnon et al, Sesnon Fee No. 7 well on Section 33-3n-16w in the Aliso Canyon field, Los Angeles County.

Sunset Beach Test In Motion

Clark C. Peterson has just started his Atha No. 1 well on Section 29-5s-11w at Sunset Beach in Orange County. The project shapes up as a southeasterly extension test. Recent completions in the area include Eddie Fisher's Ted F. Merrill Community No. 1, which was last reported producing 285 barrels of 28 gravity oil a day from 7990 feet. Another new well is the C. D. Cunningham, Operator, Rose No. 1 on Section 20-5s-11w. It is putting out about 430 barrels of 29 gravity oil a day from 7862 feet.

Potrero Well On Gas Lift

On Section 34-2s-14w and near the intersection of Prairie avenue and Manchester street, Basin Oil Company has completed on the gas lift its No. 5 well for 72 barrels of 40.4 gravity oil a day. The well was first completed from the interval of 2900-2940 feet back in 1939 for 100 barrels of oil daily.

Beverly Hills Well Redrilling

Other than the fact that the well is being redrilled, little else is known about Universal Consolidated Oil Company's 20th Century-Fox No. 8 well on Section 25-1s-15w in the Beverly Hills field. The well was taken the first time down to 9016 feet.

Intex Oil Starts Kern County Test

Approximately 4000 feet northwest of the McDonald Anticline-Layman area in Kern County, Intex Oil Company has launched its CWOD No. 1 wildcat project on Section 12-28s-19e. The drill site is about a quarter-mile west of the company's CWOD No. 12-2 test, which was abandoned three months ago at 2320 feet.

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Kettleman Hills Wildcat Abandoned

On Section 12-25s-19e in the Kettleman Hills South Dome area of Kern County, D. W. Elliott and Pexco Incorporated have abandoned their San Francisco and Fresno Land No. 62 explorer at 3390 feet.

Raisin City Well Pumping

Northwest Syndicate and British American Oil Producing Company have completed their No. 34-10 well on Section 10-15s-17e in the Raisin City field of Fresno County. Drilled to a total bottom of 6400 feet and plugged at 5010 feet, the well was last reported pumping at the daily rate of 80 barrels of 23 gravity oil from the jet perforated interval of 5003-5008 feet. Brown Drilling Company put the well down on contract.

Hidden Valley Well Drilling

Morgan Brown, who took the McMahan No. 1 wildcat in the Hidden Valley area at 6780 feet to deepen, was last reported digging with the well below 6800 feet. The drill site is on Section 29-1n-19w, Ventura County.

Shiells Canyon Project Drills

In the Shiells Canyon field, The Texas Company's Elkins No. 11 is being drilled on down at a depth near 3100 feet. In the Holser area, J. P. Rinde's Holser No. 10 extension test on Section 14-4n-18w is down 6512 feet and fishing as this is written.

Beehive Bend Well Shut-In

Having completed Capital No. 1 test on Section 5-18n-2w in the Beehive Bend area of Glenn County, Gene Reid Drilling, Inc., has shut in the well. Production capacity of the well has not been officially reported.

THIS

LAUGH OFF!!

For her first week's salary, the gorgeous new secretary was given an exquisite nightgown of imported lace. The next week her salary was raised.

The passionate young thing was having a very difficult time getting across what she wanted from her rather dense boy friend. Finally, she asked, "Would you like to see where I was operated on for appendicitis?"

"Gosh, no!" he replied. "I hate hospitals."

One guy we know is so suspicious that when his wife gave birth to twins, he flew into a rage because only one of them looked like him.

The big oil operator in South Louisiana had bragged of the excellent honey served at one hotel where he and his new bride were to stop. At breakfast, he caught the waiter's sleeve and asked: "Rastus, where's my honey?"

"Dunno, boss, dunno. She done quit working here six months ago."

"Claudette is certainly wearing a daring gown, isn't she?"

"Yes, it's daring every man in the room."

The young bride's mother had some old-fashioned ideas of marriage and passed them on to her daughter. "Never let your husband see you in the nude," she advised. "You should always wear something."

"Yes, mother," replied the obedient girl.

Two weeks after the wedding, the girl and her brand-new husband were preparing to retire when the fellow asked, "Dear, has there ever been any insanity in your family?"

"Not that I know of," she answered. "Why?'

"Well," said her husband, "we've been married two weeks now and every night you've worn that silly hat to bed."

It was necessary to give three blood transfusions to save a girl's life, and a healthy young Scot came forward.

For the first pint of blood the patient gave him $50. For the second pint she gave him $25. The third time she had so much Scotch blood in her she merely said "Thank you."

Wolf: "Where have you been all my life?"

Sweet Young Thing: "Well for most of it, I wasn't born."

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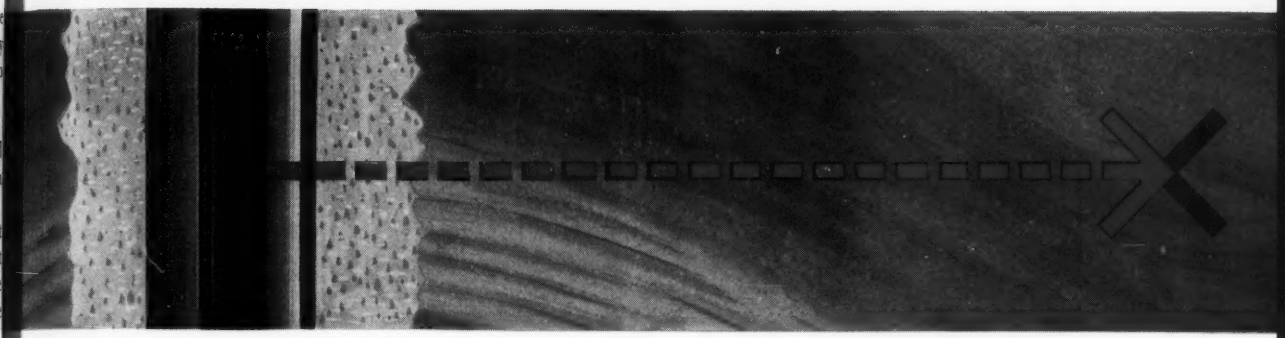

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